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A STUDY OF IN-SERVICE DISTANCE EDUCATION FOR SECONDARY SCHOOL TEACHERS IN UGANDA: DEVELOPING A FRAMEWORK FOR QUALITY TEACHER EDUCATION PROGRAMMES

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DECLARATION

I hereby do declare that this research report, being submitted for the award of the degree of **PHILOSOPHIAE DOCTOR (PhD)** of University of Pretoria is my independent work and it has previously not been submitted for a degree or any other examination at this or any other university.

JESSICA NORAH AGUTI

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_____day of _____ _____

DEDICATION

This work is dedicated first of all, to my parents who were my first teachers. Secondly, I dedicate this work to all the teachers of Uganda who even under tough conditions have continued to serve the nation by nurturing the precious children of the nation. Without the teachers we would have no professionals and no leaders. MAY GOD BLESS THE WORK OF ALL UGANDA'S TEACHERS.

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ABSTRACT

This study focused on examining distance education In-Service Teacher Education (INSET) programmes for the education of secondary school teachers in Uganda. The study traced the historical development of distance education, explored some of the theories underpinning it and related these to distance education in Uganda. In addition the study explored INSET programmes provided in Uganda through Distance Education since 1990. The study then focused on Makerere University's Bachelor of Education (B.Ed) (External) Programme. This study explored issues related to the viability of distance education to meet the increasing demands of education in Uganda, factors impacting this growth, strengths and weaknesses of the teacher education programmes that have been run in the country since 1990 especially the B.Ed (External) programme and the possibility of integrating Information Communication Technologies (ICTs) in these programmes.

To gather the relevant data, two instruments were used; questionnaires for students of B.Ed and Bachelor of Science (External), prospective students, tutors, managers and administrators of the B.Ed (External); an interview schedule for policy makers at the Ministry of Education and Sports, District Education offices, National Teachers' Colleges and Primary Teachers' Colleges. A total of 305 respondents participated in this study and they were drawn from different districts - Soroti, Tororo, Masindi, Mbarara, Kampala, Entebbe, Wakiso, and Mpigi - in the country. The data gathered was then analysed using descriptive and inferential statistics; and presented descriptively, in tables and graphs.

The study established that distance education has a huge potential in Uganda but there are a number of factors that may be limiting the full realisation of this potential especially with regard to the running of science-oriented courses and with regard to meeting the practical demands of teacher education. However, with careful planning of the programmes, it is possible to effectively and efficiently provide any course.
The study revealed a number of strengths and weaknesses in INSET programmes that have been run by distance education, and in the B.Ed (External) in particular. The specific areas included content, practical work; management and administration; study materials development and provision; student support; assessment and examination; and integration of ICTs in these programmes. To make these programmes much more effective and efficient, the study identified some strategies that could be used. Of

particular note is the need to decentralise services and to put in place quality assurance mechanisms.

Also, since ICTs occupy a central role in distance education programmes, the study explored the different ICTs that the B.Ed (External) stakeholders have access to, strategies of financing and making this technology more accessible, reasons for choosing a particular technology and the prerequisites that must be put in place for these to work. Furthermore, the study revealed that, in Uganda, access to the ICTs, is still a huge problem to students and staff of the B.Ed (External) programme. Personal ownership of the video, TV, computer and Internet is limited. Alternative ways especially collaborative ventures, and use of centres should therefore be utilised much more.

Finally, a Framework for High Quality INSET Distance Education for Secondary School Teachers in Uganda was suggested. Makerere University can use this framework as the beginning of a restructuring and reorganisation process so as to ensure the B.Ed (External) achieves its objectives and produces high quality teachers.

KEY WORDS

TEACHER

TEACHER EDUCATION

DISTANCE EDUCATION

TECHNOLOGY

INFORMATION COMMUNICATION TECHNOLOGIES

IN-SERVICE TEACHER EDUCATION

FRAMEWORK

STUDENT SUPPORT

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LIST OF ABBREVIATIONS

B.Ed	Bachelor of Education
B.Com	Bachelor of Commerce
B.Sc	Bachelor of Science
BEIRD	Basic Education in Rural Development
DE	Distance Education
EDP	External Degree Programme
IACE	Institute of Adult and Continuing Education
ICTs	Information Communication Technologies
IDA	International Development Agency
INSET	In Service Teacher Education and Training
ITEK	Institute of Teacher Education, Kyambogo
LANs	Local Area Networks
MITEP	Mubende Integrated Teacher Education Project
MoES	Ministry of Education and Sports
NITEP	Northern Integrated Teacher Education Project
NTCs	National Teachers' Colleges
PTCs	Primary Teachers' Colleges
RITEP	Rakai Integrated Teacher Education Project
TDMS	Teacher Development and Management System
UN	United Nations
UNDP	United Nations Development Programme
UPE	Universal Primary Education
USAID	United States Agency for International Development
WANs	Wide Area Networks
WorLD	World Links for Development

CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND TO THE STUDY PROBLEM

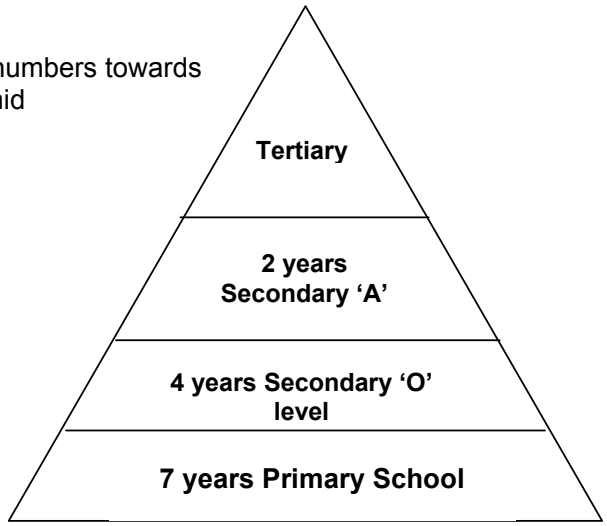
Uganda is set in the heart of Africa astride the Equator. It has a total of 236,860 sq. miles (91,249 sq. km). Of this, swamps and open water cover 17% while forest reserves and national parks cover about 12%. See appendix I for the map of Uganda. By 1999, Uganda had a population of nearly 22 million people with an annual population growth of 2.6% (Ministry of Education and Sports 1999:4). The majority of the people are of school going age. Also, 89% of this population lives and depends on the rural areas for their livelihood.

Christian missionaries introduced school education into the country in 1877 and since then, it has continued to grow. Uganda received its independence from the British on 9th October 1962, and the post independence leaders also continued to put emphasis on education as a tool for development. For, as The World Bank (1988:V) says, *'…without education, development will not occur*'.

The school system in Uganda is structured in a hierarchical manner in a 7-4-2-3 system. That is to say 7 years of primary, 4 years Secondary 'O' level, 2 years Secondary 'A' Level and minimum of 3 years at University level. At the end of each stage, there is a national examination. This structure therefore makes the education system highly selective and pyramidal in nature. Figure 1.1 illustrates this.

Figure 1.1: Pyramid shaped school education in Uganda

Decrease in student numbers towards the apex of the pyramid



In spite of this structure, school education has continued to expand since 1962 when Uganda gained its independence from the British. This is because the various governments that have been in power since independence have put a lot of emphasis on the expansion of primary and secondary education as one way of ensuring national development. For example, in 1999, Uganda had 10,500 primary schools and 625 secondary schools (Ministry of Education and Sports 1999:5). But by 2001, these numbers had grown to12,280 primary schools and 1,850 Secondary Schools (Ministry of Education and Sports 2001:3). Private individuals and non-governmental organisations run particularly many of the secondary schools as indicated in the table 1.1.

Table 1.1: Education institutions in Uganda in 2002

	Primary	***Secondary***	**Universities**	***Other Tertiary Institutions***
Government	10,368*	711	4	87
Non-governmental	1,912*	1,487	10	N/A
Total	**12,280***	**2,198**	**14**	

* 2001 figures
Source: Ministry of Education and Sports (2001: 3), Republic of Uganda (2002:119)

It should however be pointed out that, this expansion did not take place during all the years since independence. The Amin-era of 1971 -1979 however affected all sectors of life very negatively. This was a period of anarchy. A period '*…characterised by insecurity, a decline in economic productivity, brain drain, and break down of the social services*' (Aguti, 1996:4). The education system was therefore also affected with decline and decay of physical infrastructure and deterioration in all other teaching/learning facilities.

Tertiary education has also been expanding but not as rapidly as the primary and secondary sections. In 1970, Uganda had one University, one National Teachers College [for the training of lower secondary school teachers], one Technical College and one College of Commerce. Today this number has grown to 4 public universities and 10 private universities; 10 National Teachers Colleges and 4 Technical Colleges, 9 Colleges of Commerce and one Business School (Ministry of Education and Sports 1999:5). With the exception of the private universities mentioned, all the other schools and institutions are government aided. However with the liberalisation of the economy, many private schools and a number of private institutions have been opened in the last decade. Many of these private institutions offer certificate and diploma professional training in different

fields including business studies, computing, tourism, teaching in nursery and kindergarten schools, catering and hotel management.

Whereas the school system has continued to grow, the need for more and better trained teachers still remains. According to the Republic of Uganda (2002:119), the secondary school system has a total of 37,227 teachers. However, 3,512 (9.43%) of these are untrained and 244 are under trained. See also table 3.4 for details of number of teachers their gender and qualifications.

In addition to the untrained and under trained teachers in the secondary school system, many of the Diploma teachers are teaching classes they are not qualified to teach. In the Teacher Utilisation Study, the Republic of Uganda, Ministry of Education and Sports (May 2001:34) concludes,

> The deployment of Diploma holders to teach in advanced classes is not only inappropriate but could also be a reflection of shortage of qualified teachers in the schools affected. This could affect the performance of teachers and undermine the teaching quality and students performance'.

Teacher attrition is another challenge that the school system in Uganda is facing. In 2002 alone, the secondary school system lost a total of 2,845 (7.64%) teachers. Some of these teachers died, some were unable to continue teaching because of long illnesses while others left the service for unknown reasons. Table 1.2 gives the details of teachers' numbers and reasons for leaving teaching.

Table 1.2: Secondary school teachers' reasons for leaving teaching - 2002

Reason	**Male**	**Female**	**TOTAL**	**Percentage of Teacher Population**
Transferred to non-teaching post	526	143	669	1.80
Resigned/dismissed	577	130	707	1.90
Retired	77	25	102	0.27
Prolonged illness	72	28	100	0.27
Died	203	47	250	0.67
Reason not known	759	258	1,017	2.73
TOTAL	**2,214**	**631**	**2,845**	**7.64**

Source: Figures from Republic of Uganda (2002:120)

Uganda has therefore looked at alternative means of meeting the demand particularly of higher education. The government has encouraged entrepreneurs to open up training

institutions or universities and government has also strongly recommended the use of distance and open learning. The government White Paper on Education recommends that '…*an open university should be planned and provided before the year 2000'* (Republic of Uganda 1992:95). Although an Open University has not yet been established, plans are underway to do so. In November 1999, the Minister of State for Higher Education commissioned a Task Force to look into the possibilities of setting up an Open University in Uganda. This Task Force completed its assignment and submitted its report to the Ministry of Education and Sports that is now following this up and the Open University of Uganda should soon be established.

The government White Paper on Education also particularly acknowledges the role that distance and open learning can play in the training of teachers. As pointed out earlier, there has been a tremendous expansion in the school system, to ensure quality education in these schools well-trained teachers are needed. However, the teacher training institutions are not producing enough teachers to meet the demand in schools. Odaet (1988:687) said far back in 1988, that one of the major problems facing the education system in Uganda is '…*the shortage of qualified teachers and the increasing number of unqualified teachers.'* This is unfortunately still true even today. So the Ministry of Education and Sports has recommended the use of distance and open learning methodologies for the training and retraining of teachers. The White paper on Education recommends,

> From 1992/93 onwards crash programmes for training and re-training teachers will be mounted. Increased enrolment and training of teachers will be undertaken … through the in-service system, training on the job and long distance. (Republic of Uganda 1992:4).

To implement these recommendations, Uganda moved on to start distance education projects in teacher training. In January 1992, Mubende and Kiboga districts launched the Mubende Integrated Teacher Education Project (MITEP) so as to train its untrained primary school teachers. The success of this project led to the launching of the Northern Integrated Teacher Education Project (NITEP) with the aim of training the untrained primary school teachers in the northern region of the country. This project has also wound up but the teacher training programme is now being run by Kyambogo University - formerly Institute of Teacher Education, Kyambogo (ITEK) as a national programme. The same applies to the Teacher Development and Management System (TDMS) that was also launched as a pilot project this time for the training of Headteachers. TDMS

wound up as a project and the programme is now also being run by Kyambogo University and will soon be run as a national programme (Makau April 2001:20).

Apart from these efforts at using distance education for the training of teachers, Makerere University, the oldest university in the country, also launched an External Degree Programme (EDP) in 1991. Under this programme, three undergraduate degree programmes are currently being run: Bachelor of Commerce (B.Com), Bachelor of Education (B.Ed) and Bachelor of Science (B.Sc). The B.Ed is meant to upgrade diploma teachers to Bachelors level.

There is growing interest in the private universities also in distance and open learning. Uganda Martyrs' University has, for instance, launched three diploma programmes that are being offered by distance education. Uganda Martyrs' University already has a total of 500 students enrolled for Diploma in Advanced Education Management, Diploma in Democracy and Development Studies and Diploma in Banking Management (Uganda Martyrs' University 2003). Mukono University, another private university, has also launched a Bachelor of Education (B.Ed) programme.

It is therefore clear that Uganda has keen interest in the use of distance and open learning for the education of its citizens. Uganda has particularly used distance and open learning for training, retraining and upgrading its teachers. However, experience has so far shown that most of these programmes are using only print with a heavy reliance on face-to-face or residential sessions. This is disruptive to the teachers, school children and schools as a whole. There have already been some concerns about this particularly with regard to the Makerere University B.Ed (External) programme. It is therefore imperative that Uganda critically looks at the strategies it is using to provide teacher education by distance and open learning.

In addition, Information and Communications Technologies (ICTs) have been used in other countries for purposes of making distance and open learning more flexible and in Uganda, there have been some pilot projects using these technologies for example, The African Virtual University and WorLD Links. However, there is hardly any integration of these technologies in teacher education. So, can teacher education providers revisit the models of training they are using and attempt to utilise these technologies so as to make their distance and open learning programmes more flexible, of higher quality, and more cost effective?

1.2 REASONS FOR CONDUCTING THIS RESEARCH

The researcher has, since 1990 been involved in distance education at Makerere University. As a member of staff in the newly created Department of Distance Education, the researcher has witnessed the teething problems of this External Degree Programme from its launch in 1991.

As mentioned earlier, the EDP runs the B.Ed for teachers wishing to upgrade from diploma to degree status. The B.Ed (External) has come a long way since its launching. It has grown from only 198 students admitted in 1991 to now an annual admission of nearly 2,000 students and a current total enrolment of 3,348. However, in spite of this growth, the researcher has noted some weaknesses in the programme that need some attention. Some of these include:

- *Heavy reliance on face-to-face sessions*. The B.Ed (External) students regularly report to the Main University Campus for face-to-face sessions. Face to face sessions are supposed to be supplementary to the study materials however, there seems to be a heavy dependence on these sessions (Robertshaw 2000:4). This is expensive to both the students and the Department since the more the face-to-face sessions the more likely it is for the cost of distance education to rise. Also, frequent face-to-face sessions may disrupt the schools, school children and the teachers' lives because these sessions sometimes take place during the school term.
- *Poor student support*. Heavy reliance on face-to-face sessions is partly because Makerere University is not giving the students adequate support. For example, print material seems inadequate and nearly all the other support services are only available centrally at the main University Campus.
- *Rigid programming.* Makerere University is following a semester system with strict dates of opening and examinations. The EDP was also restructured to follow the same system particularly since the external students and their counterparts sit similar examinations. Although the B.Ed is a three-year programme and its equivalent internal programme is two years, the result of following a semester system places a lot of pressure on the external students and again disruption to schools, school children and the teachers themselves.
- *Inadequate response to changing demands in teacher education.* Teacher education has changed from the kind of teacher preparation that emphasises only teaching skills to the kind of teacher preparation that is focused on the preparation of teachers for democratic and active methods of teaching. There is therefore now a growing

need to help teachers acquire attitudes, knowledge and skills that will prepare them for these democratic and active teaching/learning strategies. This presupposes that more cooperative methods of teacher preparation are used and that there is continuous professional development for all teachers in the school system. Unfortunately, it does not seem that the B.Ed (External) is fully helping equip its teachers. So it may be doubtful that the programme is effectively equipping its students. See also section 3.1.1 that discusses the distinction between teacher education and teacher training.

- *Inadequate integration of other media.* The EDP at Makerere is mainly based on a distance education model that relies heavily on print and is therefore not using other media and yet many other distance education programmes today are introducing new technologies in their programmes. Makerere may be left behind by not keeping up with current trends in distance education.

There is a lot of potential in the new technologies and distance education in Uganda would benefit from exploiting this potential. True there are some challenges in Uganda that may inhibit full exploitation but it should be possible to find models that utilise the new technologies within the limitations in Uganda yet ensure quality and cost effectiveness in the programmes.

It is therefore necessary to examine the EDP model and others being used and from lessons learnt from this move towards designing a model that will perhaps integrate more technologies, lead to more quality and satisfactory training of teachers for as Robinson (1996:9) says,

> Though research and experience point to a combination of media as more effective for learning than a single one, courses for primary teachers in some developing countries, particularly in Africa, have tended to drift towards use of print alone…

Besides all this, watching the growth of the school system in the country and knowing that in some districts children especially in primary schools in the rural areas are being taught by either untrained or under-trained teachers, it is important that alternative means of training teachers be exploited. Teachers are very central to any education system and Uganda cannot therefore afford to watch while the children continue to suffer as a result of being taught by either untrained or under-trained teachers. Also, since distance education is known to have the potential to train teachers fast without disrupting the schools (Evans and Nation 1993:276; Robinson 1996: 6), this is an attractive

alternative which is already being used in the country but which needs revamping especially through the use of new technologies.

The research has therefore been prompted by the researcher's own involvement in distance education and teacher education and by the realisation that with the growth of school education, teachers who are a core element in any successful education system must be trained. This training should be one that will prepare the teachers to be effective in this age of information explosion. Examining contemporary distance education methodologies and their relevance to teacher education in Uganda with a view to recommending a framework for the training of teachers, will be one way of contributing to making education in Uganda relevant to its citizens, efficient and more cost effective.

1.3 STATEMENT OF RESEARCH PROBLEM

The demand for education has increased tremendously in Uganda. However, the resources to support this increase have not increased at the same pace. Expansion in colleges and universities is still below the levels of demand. In particular, since the declaration of Universal Primary Education (UPE) in 1997, the primary school enrolment exploded, rising from nearly 2 million children to about 3.6 million that same year. However, by 2003, this enrolment grew to about 7.4 million while in 2001 alone, about 400,000 children wrote the Primary Leaving Examinations. This implies that, in a few years, the number of children graduating from school and desiring to join colleges and universities will be much higher than the current numbers in colleges and universities.

To cope with the massive increase in school enrolment and the subsequent need for more and better-equipped teachers, Uganda has used distance education to provide especially in-service teacher education. However, it is not entirely clear whether the present distance education models used are the best strategies for the effective provision of INSET. It is not clear whether the models are meeting professional and subject demands in teacher education.

The next sub sections expound this problem.

1.3.1 Need for more and better quality teachers

Increased demand for education implies increased need for teachers as well at all levels of education. However, to date, Uganda does not have enough teachers particularly in Mathematics and Science and besides, many of those in service are either under-

qualified or untrained. Without adequately trained teachers, it will be very difficult for Uganda to provide high quality education to its people. For example, according to the Republic of Uganda (2002:119), the secondary school system has a total of 37,227 teachers. However, 3,512 (9.43%) of these are untrained and 244 are under-trained, and of those who are trained, there are many that are teaching classes they are not qualified to teach (Republic of Uganda May 2001:34). It is therefore imperative that Uganda provides training for all the categories of teachers needed.

1.3.2 Problems with current models of Distance Education

To face up to the challenge of increasing demand for education and for teachers, Uganda has recommended the use of distance education to bridge the gap. Already there are some programmes running. Some of these are pilot and others are institutional. Unfortunately, all these programmes are relying on print and face-to-face or residential sessions. There is hardly any integration of other Information and Communication Technologies. Also, the structuring of some of these programmes is not sensitive to the school terms and so activities are organised for the students during the school term. Reliance on face-to-face sessions and poor structuring of programmes is disruptive to teachers, school children and schools as a whole. This therefore raises a lot of questions about the quality and effectiveness of these programmes to produce teachers who are well prepared and equipped to serve the school system effectively and efficiently.

1.3.3 Need to meet the changing demands in Teacher Education

There is change in the general trend of teacher education in many countries from the traditional approach where teaching skills are emphasised to a new approach where learners are expected to participate actively and the teacher's role is that of a support/facilitator (Boulton-Lewis et al. 2001:1, Coetzer 2001:75-76, Dreyer 1994:72, Mcloughlin and Oliver 1999:33). However, for this to happen, teacher education programmes must promote active learning of the trainees. Unfortunately, the B.Ed (External) study package does not seem to promote active learning. With dependence on face-to-face sessions where lectures are the norm, it is difficult to conduct classes that promote active learning. The B.Ed (External) may therefore not be responding to changes in teacher education.

1.3.4 Need to integrate new technologies in DE programmes

Also, there seems to be pressure for DE providers to integrate Information and Communications Technology (ICT) in their programmes so as to increase access to education, improve the quality of teaching and learning and reduce costs to education.

The Ministry of Education has sanctioned some pilot projects involving schools in the use of ICTs. For example the WorLD Links Project has been operating in 20 schools in the country since 1996 and is now spreading out nationally. Unfortunately, most of the teachers in these schools have had no knowledge and experience in the use of ICTs. They were not exposed to the use of ICTs in teaching while they were being trained and if as its said, *"you will teach as you were taught"* then how can teachers be prepared to exploit ICTs for teaching purposes?

Unfortunately, it is not certain that Uganda is ready to fully benefit from ICTs in education. Uganda is still inundated by poverty, poor social and technological infra structure, poor attitudes towards DE and ICT, high cost of equipment and uncertainty about the sustainability of such programmes.

The challenge therefore is how best DE can fully benefit from the advantages of ICTs in the provision of teacher education while at the same time, ensuring quality in the programmes, and the teaching/learning experience and also ensuring cost effectiveness for as Perraton, (2000:23) says, '…m*inisters of Education have a costly impossible portfolio. In developing countries, they face the conflicting pressures to expand education and improve it'.*

Hence, it would be important to identify a framework that will allow Uganda to revisit its teacher education programmes and to integrate ICTs while taking into consideration the inadequacies in finance, infrastructure and attitudes.

1.4 AIM OF THE STUDY

This study was guided by the following aim:
'To critically examine the existing model for the provision of distance education In-Service Teacher Education (INSET) for secondary school teachers in Uganda against existing contemporary distance education theories and practice, identify the model's strengths and weaknesses thereby establishing its efficacy to provide quality teacher education and suggest a framework for improvement'.

To achieve this general aim of the study, the study was guided by specific objectives given in the next section.

1.5 STUDY OBJECTIVES

Taking into consideration the above mentioned aim, the study therefore sought to:

1. Critically analyse the various theories and practices of distance education and the different typologies of distance education institutions
2. Review the different definitions and forms of teacher education
3. Trace and analyse the development of teacher education in Uganda
4. Determine the extent to which distance education is a viable option for the provision of quality Teacher Education in Uganda.
5. Identify the factors impacting Teacher Education by distance in Uganda.
6. Assess the extent to which Information Communications Technologies (ICTs) can be integrated in the provision of Teacher Education by Distance In Uganda
7. Propose a framework that would be appropriate as a guideline for the provision of quality In-Service Teacher Education using distance education in Uganda.

1.6 SIGNIFICANCE OF THE STUDY

This study on In-Service Distance Education for the Education of Secondary School Teachers In Uganda is an important study that is likely to be of particular significance to:

- Makerere University, which is currently running the biggest distance education programmes in the country.
- Policy makers in education especially those involved in teacher education and this includes Ministry of Education and Sports officials, principals and directors of teachers' colleges.
- Other Universities running or planning to run distance education programmes
- Any other researchers interested either in distance education or in teacher education.

Distance education is growing as an alternative form of providing education and in Uganda it has been used mainly for the training of teachers. This growth of distance education is based on the assumption that it is a viable option for meeting increasing demands for education especially for higher education. And in relation to this, it has been used in many programmes for training and retraining of teachers and in some of these programmes it was seen to achieve a lot (Makau April 2001:1, Perraton 1993a, Perraton, Creed and Robinson 2002:7). It is therefore vital for Uganda to fully appreciate the potential of distance education in meeting the needs for more and for better-trained teachers in the country.

However, in spite of distance education having been used widely for the training and retraining of teachers, there have been some misgivings about its efficacy and it has been accused of promoting surface learning, being ineffective for practical skills, having high drop out rates, and sometimes promoting elitist learning (Holmberg 2001:73, Keegan and Rumble 1982:228, Paul 1990:79 & 85, Perraton 2000:12). Uganda has run a number of programmes since 1991 and Makerere University currently has the biggest distance education programme in the country. It is therefore vital that Makerere University and the various Ministry of Education and Sports officials and any other teacher educators revisit these programmes so as to identify the problems and challenges they face and eventually plan better ways of providing teacher education using distance education. Studies such as this one is one way of revisiting these programmes with a view to making them better.

Since 1991 when Makerere University launched its External Degree Programme (EDP) that includes the Bachelor of Education (B.Ed. External), there has been no evaluation of the programme and neither have there been any impact studies of the programme. Yet, it is not advisable to continue running any programme for this long (more than 10 years) without such studies. This study is therefore a step towards doing this since it focused on the B.Ed (External) programme.

In addition, Information Communication Technologies (ICTs) have been closely associated with distance education. In fact, distance education and ICTs are inseparable (Amundsen 1996:67). The advances in technology today especially since the onset of computers, Internet and World Wide Web (www) have made distance education programmes much more versatile. However, Uganda's programmes do not seem to have widely integrated ICTs in their programmes yet it is assumed that ICTs have the potential to enrich teaching/learning in any distance education programmes. It is therefore vital to identify challenges to this integration and to determine how this can be achieved in spite of the limitations in Uganda.

1.7 SCOPE AND LIMITATIONS OF THE STUDY

Distance education has been used for a variety of programmes in Uganda by both public and private institutions and in the last few years there is been a growing number of international institutions also advertising their distance education programmes in the country and therefore presumably recruiting students. However, this study focused on In-Service teacher education specifically for secondary school teachers; and since at the

time of starting this study, Makerere University was the only institution providing INSET for secondary school teachers, a closer attention was paid to Makerere's B.Ed (External) programme.

There were a number of challenges faced during this study that may have limited it in a number of ways. Related to this was the challenge of having to visit many districts within a short period of time and having to reach many respondents scattered in these districts. Sampling of respondents was also challenging especially since the researcher did not have a list of the population of the study.

Since the study was largely qualitative, a huge amount of data was generated and the process of reducing this data and analysing it was long and tedious. In addition, the following were also challenging:

- Insecurity in the North of the country.
- Busy schedules for many of the officials that made it difficult for them to easily avail themselves for the study.
- Literature on distance education in Uganda is very limited so it was not always possible to get this literature.

Limitations of this study are discussed in more detail in chapter eight section 8.5.

Distance education is growing in the country and it is therefore important that there is continuous review and evaluation of running programmes for continuous improvement. Although this study focused on teacher education programmes, Makerere University's B.Ed (External) in particular, the findings here could nevertheless be generalised to other teacher education programmes bearing in mind the fact that the framework recommended here is not necessarily a blue print that must be followed but it can be taken as a guideline for much more comprehensive and focused discussions.

1.8 BASIC ASSUMPTIONS OF THE STUDY

This study was undertaken with the following assumptions in mind:

1. In-Service Teacher Education (INSET) is part and parcel of the teacher development continuum and is vital for continuous professional and academic improvement of the teachers.
2. Knowledge and skills teachers acquire during initial teacher education could become obsolete so teachers are in constant need of INSET.
3. Distance education is a viable option of providing INSET.

4. Quality INSET programmes provided through distance education are dependant on quality distance education programmes.
5. Information Communication Technologies (ICTs) are vital for enriching teacher education programmes run by distance education.

1.9 RESEARCH QUESTIONS

This study was carried out with the hope of addressing the study problem stated and so as to achieve the stated objectives. To guide this process, the following research questions were therefore stated.

1. What are the various theories of distance education and the different typologies of distance education institutions?
2. What are the different definitions and forms of teacher education?
3. To what extent can distance education be a viable option for the provision of high quality teacher education that effectively meets education needs in Uganda?
4. What are the practical demands in teacher education by distance and are the current teacher education programmes meeting these demands?
5. What factors are impacting teacher education by distance in Uganda?
6. What are the strengths and weaknesses of teacher education programmes that have been offered through distance education in Uganda and how can these programmes be improved?
7. What are the strengths and weaknesses of the Bachelor of Education (External) programme and how far is it helping teachers acquire the required competencies?
8. To what extent can Information Communications Technology be integrated in the provision of Teacher Education by Distance In Uganda?
9. How should a distance teacher education model be designed to meet the needs and demands in Uganda?

1.10 CONCEPTUAL FRAMEWORK

The conceptual framework of this study is based on first of all the view that In-Service Teacher Education (INSET) is an integral part of the teacher education continuum that consists of 'initial training →induction and finally →in-service' (Aspland and Brown 1993:18). For a more fully rounded teacher whose knowledge and skills is continuously renewed resulting into growing mastery and professionalism, INSET is vital. INSET programmes should therefore be designed based on identified needs of the teachers and

run in a manner that will promote growth and education of better teachers. The programmes should, efficiently and effectively produce high quality teachers.

Secondly, this conceptual framework is based on the premise that '*…distance education programmes are systems of teaching and learning*' (Dhanarajan 2001:21). Therefore regardless of how the programmes are designed and the technology utilised, all teaching/learning functions must take place.

Hence INSET programmes run by distance education should therefore be programmes that are designed to meet identified needs and should be run in such a manner that all teaching/learning activities of the programme are effectively and efficiently run.

1.11 RESEARCH STRATEGIES AND METHODS

To carry out this study a number of strategies were used. A summary of these will be given here but chapter four specifically focuses on these strategies and methods.

1.11.1 Population and sample

The population in this study comprised students, tutors and managers of the Bachelor of Education and Bachelor of Science (External) programmes, prospective students of the B.Ed (External) programme and policy makers of teacher education. The choice of the sample was based on their importance to the study; and ultimately the total sample drawn was 305 with 185 students, 49 prospective students, 36 tutors and managers, and 35 policy makers. This sample can be said to be representative because it included all the stakeholders of B.Ed (External) programme. See also section 4.6.1 for a further discussion of sample representativeness.

1.11.2 Data collection

To achieve objectives set out in this research a number of research instruments were used. Also to ensure proper administration and maximise participation of the respondents, some procedures were followed. Three instruments were used (see section 4.7 for details on the data collection procedures):

- ***Literature review*** that helped lay a strong theoretical basis for the study.
- ***Questionnaires***. Different types of questionnaires were designed for the different categories of people and this was so as to establish both qualitative and quantitative data. See appendices II –V for samples of the different questionnaires used.

- ***Structured interview schedule*** which was used to gather information from policy makers.

A pilot study was conducted prior to collecting data. This was so as to ascertain the reliability of the instruments used. The findings of the pilot study were used to refine the instruments. In addition, to ensure validity, the supervisors and the research support team also reviewed the instruments. This is discussed in greater detail in sections 4.4.2 and 4.8

1.11.3 Data analysis

The data gathered was both qualitative and quantitative. To prepare for data analysis of the qualitative data, meaningful themes or patterns were derived; each of the categories was then assigned a number and the numbers used for coding purposes. Section 4.9 discusses this further.

After all the data was coded, it was analysed with the help of the Department of Statistics in the University of Pretoria using the statistical package SAS Version 8. Percentages and frequency diagrams were used to indicate the distributions of the different views expressed and the Chi-square test used to determine levels of significance.

1.12 DEFINITION OF KEY TERMS AND CONCEPTS

A number of terminologies have been used in this study and there are also some key concepts whose understanding is critical for a full appreciation of the study. The list of terms and concepts has been given here and each of them defined but this should not be taken to imply any other concepts or terminologies are of less importance. Also, the definitions given here, although derived from various literature, have been defined as used in the study.

1.12.1 Learning

The first view taken in this study is that learning takes place all the time and also that learning is '*…is the development of new knowledge, skills, or attitudes an individual interacts with information and the environment'* (Heinich et al. 2002:6). According to this definition, interaction is important for learning to occur and this interaction is not limited to interaction with teachers only but includes anything else that will promote learning. In this study, it is therefore understood that learning can take place as a result of interacting with media, teachers, other students, the community around and any form of literature.

The second view taken then, is that learning must be active. In other words, the learners must participate and contribute to the learning process.

1.12.2 Learner

A learner is therefore one who engages in any learning activity. This implies that any person regardless of age can be a learner. So, in this study, this word is sometimes used to refer to the teacher trainee and in other cases to refer to a school child. The specific meaning attached to it will therefore depend on the context in which it is used. Also, the word learner is used synonymously with the word student.

1.12.3 Teaching

According to The World Book Dictionary, (Barnhart 1995:2152) to teach is to *'…help to learn; show how (to); make understand…'* Teaching is therefore the process of facilitating learning and nurturing learners. In this study therefore teaching is taken as a facilitating role and this goes beyond giving learners information but involves offering all necessary support in the learning process.

1.12.4 Teacher

Arising from what has already been said about teaching, a teacher is therefore one who facilitates or helps learners learn. Although this study is focusing on INSET for secondary school teachers, the word teacher has been used to refer to one who facilitates learning regardless of level.

1.12.5 Teacher Education

This term and teacher training are often used synonymously to refer to the process of helping teachers acquire attitudes, knowledge and skills that they need so as to carry out their duties and responsibilities as teachers. However, the term teacher training sometimes refers to only acquisition of teaching skills, in this study therefore the term **teacher education** with its emphasis on broader skills, knowledge and attitudes will be used.

1.12.6 In-Service Teacher Education (INSET)

This is the form of training and education of teachers who are already serving the school system. This can therefore be the training and education of untrained teachers, additional, further or supplementary education and training for the already trained teachers. Courses offered can be credit or non-credit and can therefore be provided through seminars, workshops, conferences, short courses, and long courses (Bagwandeen and Louw 1993:108-117). The acronym INSET has been used throughout

this study because, although it refers to In-Service Teacher Education and Training, it is used here whenever In-Service Teacher Education is being discussed.

1.12.7 Information Communication Technologies (ICTs)

This is a collective term used to refer to all the different information technologies that can be used in the provision of distance education. In this study it is used to include radio, print, television, audiocassette, video, telephone, computers and Internet. The plural for 'technologies' has been adopted because it includes the different types of technology.

1.12.8 Student support

This is a system of services meant to help students

- …develop their understanding of the content,
- help the student identify areas of weakness and to overcome these,
- provide administrative support such as counselling, …

(Robertshaw 2000:2)

In this study student support has therefore been used to include all services that will ensure that the distance education programme helps the students achieve all that Robertshaw (2000:2) refers to here. These services include provision of information, face-to-face sessions, student group meetings, library services, guidance and counselling.

1.12.9 Study materials development and provision

Distance education is dependant on study materials to carry out teaching functions, so study materials development is the entire process of designing, producing and providing quality study materials to students. This embraces the process of designing, producing and providing all study materials regardless of the technology being used, with the ultimate purpose of crafting an effective learning environment (Murphy 2000:2). This process therefore includes taking decisions on, among others, technology to be used, the content to be included in the study materials, learning and assessment processes, training of course developers, production options, evaluation of the study materials, delivery and access strategies.

1.12.10 Framework

This has been used to refer to a set of ideas and guidelines. A structure upon which can be built detailed and comprehensive guidelines or system of quality distance education programmes for In-Service Teacher Education.

1.13 ORGANISATION AND STRUCTURE OF THE REPORT

This study consists of eight chapters that are all interrelated and form the whole. Although each chapter focuses on specific issues, they together form one whole report of the study. They should therefore be read as parts of one whole.

The background to the study is given in chapter one. This chapter also includes the reasons for the study, states the research problem, research objectives, and questions.

Chapters two and three give the theoretical analysis upon which the whole study is based. Chapter two provides the conceptualisation of distance education by tracing its historical development, exploring some of the theories underpinning it and relating these to distance education in Uganda. From these theories, key characteristics of distance education were identified. The chapter also discussed some of the various distance education programmes that have been run in Uganda since 1990 and the major features of these programmes discussed. Chapter three on the other hand explores In-Service Teacher Education provided in Uganda through Distance Education since 1990.

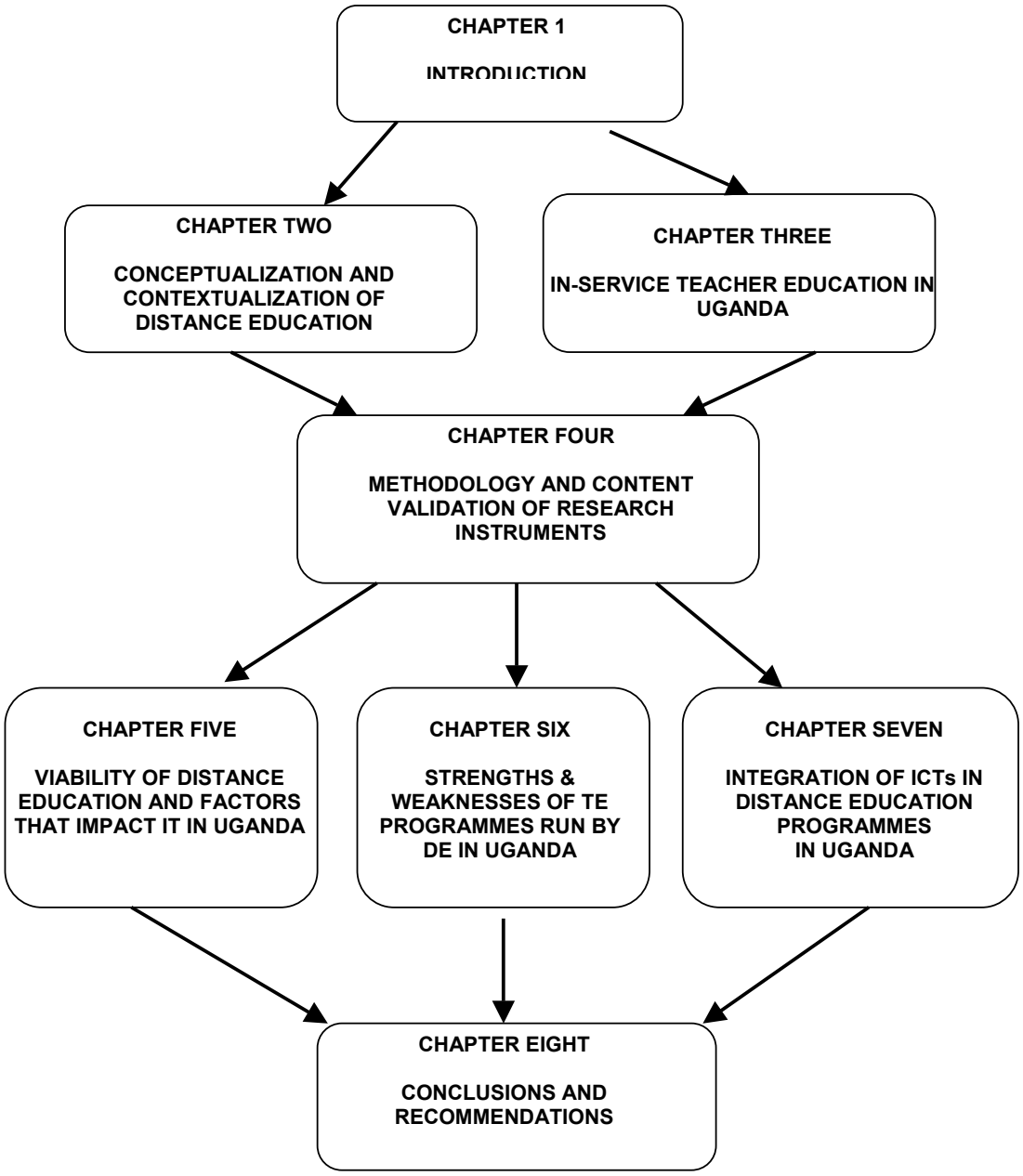
Chapter four then presents the methodology that was used to carry out the study highlighting the instruments used, the sample and the content validation of the research instruments.

The results are then presented in three chapters each focusing on a specific theme that the study explored. Chapter five examines the viability of distance education and factors that impact it in Uganda, chapter six the strengths and weaknesses of the programmes that have been run in Uganda and chapter seven focuses on the integration of ICTs in distance education programmes in Uganda.

Chapter eight is the final chapter and presents the conclusions and recommendations made in the study. In particular it presents a framework for the improvement of In-Service Distance Education for the Education of Secondary School Teachers in Uganda.

Figure 1.2 is therefore a diagrammatic representation of the organisation and structure of the study.

Figure 1.2 Organisation and structure of the report



1.14 SUMMARY

This chapter has presented the introduction to the entire study. In so doing, the background to the study and to the research problem is given. There is a general increase in the need and demand for higher education in Uganda; however, existing facilities cannot meet this and so the country is considering distance education as an

option of meeting this need and demand. In particular, distance education has been recommended and used for teacher education. In spite of the achievements using these programmes, there seem to be some challenges faced. The chapter then presents the research problem, objectives, and questions.

A summary of research methods used is also given and finally, the structure and organisation of the study is presented.

CHAPTER TWO
CONCEPTUALIZATION AND CONTEXTUALIZATION OF DISTANCE EDUCATION

What's in a name? That which we call a rose
By any other name would smell as sweet
Juliet (William Shakespeare)

2.1 INTRODUCTION

This chapter is an attempt to establish an understanding of distance education, set the context for its growth and development in Uganda and thereby describe its 'status quo' in the country. The chapter is also meant to act as a bridge to an understanding of the provision of In-Service Teacher Education for secondary schools (INSET) by means of distance education in Uganda. So, in order to achieve this, efforts will be made to:

- Discuss the different designations given to distance education.
- Trace the history and growth of distance education.
- Examine the different theories that have been put forward about distance education.
- Identify the common features of distance education.
- Where possible, relate all these to Uganda in general and teacher education in Uganda in particular.

2.2 DESIGNATIONS

There have been a number of efforts to try and define distance education and as will be discussed later, many of these definitions have been influenced by the contexts in which distance education is offered. These different definitions are what have been called designations here and some of the common ones will now be explained without necessarily comparing them. The ultimate purpose rather is to understand each of these designations that have variously been used and continue to be used. Suffice it to say however that, sometimes the usage may have regional or institutional preferences. For example, according to Moran and Myringer (1999:59), in North America, the terms 'distributed learning', 'technology mediated learning', and 'telematics' are used while in Australia, the term 'flexible learning/delivery' is more popularly used.

2.2.1 Correspondence Education

This is the oldest form of distance education. Commonwealth of Learning (2000) defines this form of education as '…*education that relies on print-based, self-study materials with communication through postal services'.* The greatest impetus to the growth of this form was the growth of both the print industry and the postal systems. This form of education usually entails printed learning materials and assignments being sent to the learners,

who then do the assignments and mail them back to the teacher or institution (Bates 1994:1574). Learning is thus mainly based on studying the printed study materials and the feedback from the teachers.

However, later when much more than only correspondence began to take place, this term 'Correspondence Education' was seen to be inadequate. Education no longer relied on only correspondence but began to include radio, television, and face-to-face meetings that were conducted to help learners. Holmberg (1986:1) says, '…*as more people seem to regard correspondence as something that takes place entirely in writing, distance education has been adopted as a more neutral term'.*

Nevertheless, Correspondence Education was the first terminology given to what today is commonly referred to as distance education.

2.2.2 Distance Education (DE)

Distance Education based on multi-media approaches (Holmberg 1986:1) relies on more than correspondence alone; education is now provided using a combination of:

- Print study materials
- Face-to-face meetings taking place at various locations
- Correspondence communication between learners and the institution
- Use of other media (and combination thereof) like telephone, radio, computers, TV and video conferencing for various activities.

This term, Distance Education was formally accepted in 1982 when the International Council of Correspondence Education changed its name to The International Council of Distance Education. This being an international organisation bringing together all institutions and agencies providing distance education, the adoption of its new name gave great recognition to this new terminology and form of providing what had earlier been known as Correspondence Education (Holmberg 1986:1, ICDE 2003a). However, when in 1969 the Open University UK was opened, the term Open learning came into use.

2.2.3 Open Learning

The opening up of the Open University, UK introduced new elements in the provision of distance education. Some of the major tenets of the Open University UK include openness as to people, place, methods of teaching and ideas (O'Shea and Downes 1997:58).

However, it should be pointed out that, in spite of this desire to be open, no institution has really achieved this total openness. Institutions including Open Universities have continued to have various restrictions (Paul 1990:40, Rumble and Keegan 1982:12).

Distance education was now seen as restrictive and not flexible enough or open enough to permit all who desired to receive education to do so regardless of previous qualifications. So this new form of providing distance education was seen as a major step towards democratising education; a step towards making available to all including those previously disadvantaged by the highly competitive and selective education systems. As Paul (1990:40) says, '…*open learning is merely one of the most recent manifestations of a gradual trend towards the democratization of education'.*

Later, increased access to computers introduced other new elements and a paradigm shift in open and distance learning. As a result there is now a plethora of terminology being used to refer to distance and open learning. Some of the terminologies are flexible learning, telematic education, distributed learning, on-line education and virtual universities. As will be shown in the subsequent sections, there are minor distinctions sometimes even confusion about these different terminologies (Guiton 1999:51, Moran and Myringer 1999:59) however, as mentioned earlier in section 2.2, no in depth comparative analysis of the different designations will be made.

2.2.4 Flexible Learning

The typical university student is changing with more and more adults returning to school (Berge 2001a:6, Peters 1994:28, Robinson 1996:6). These adults require education that is flexible with regard to pace of learning, methods of teaching/learning and with regard to programme activities - education that also allows them to study as they work. Flexible learning is therefore such an education system but as Guiton (1999:51) says, *'…as with most aspects of openness in education, interpretations of flexibility are as elastic as the term itself.'*

However, it is agreed that Flexible Learning is a student-centered education that uses a variety of methods and technology so as to ensure high levels of interaction and flexibility in terms of:

- Access to and exit from several learning programmes;
- Accreditation and portability of qualifications;
- Modes in which communication takes place; Study material;
- Time and place of study; and
- Pace at which learning takes place. (University of Pretoria – Telematic Education 1999:9)

Traditional internal university programmes have rigid structures that make it difficult for any student to progress at his/her own pace and to transfer credits from one institution to the other or from one programme to the other. This is also a problem that many distance education institutions still grapple with (Paul 1990:40, Rumble and Keegan 1982:12). Flexible learning is therefore a step towards overcoming this handicap.

2.2.5 Telematic Education

Perraton and Creed (2001:3) define telematics as *'the combined use of telecommunications and computer technology'.* From this definition, it is clear that Telematics like Flexible learning and Distributed Learning all rely heavily on technology. One of the major emphases of Telematics, according to the University of Pretoria, Telematic Education (1999:10) is the fact that it embraces the philosophy of flexible learning as already discussed in section 2.2.4. In fact on close examination, there may be no distinction between Flexible Learning and Telematics. The choice of which terminology to use may be driven more by preference than core distinction in philosophy.

2.2.6 Distributed Learning

Like Flexible Learning and Telematic Education, Distributed Learning relies heavily on technology, especially modern technologies, and emphasizes flexibility in learning. Multi-media is therefore used involving '*…workstations, servers, video conferencing … internet connection, phone lines…'* (Meyer-Peyton 2000:85). As a result of variety of technology, Distributed Learning can either be synchronous or asynchronous. That is either taking place in real time as with a videoconference or delayed as with e-mail.

Distributed Learning enables the student to study at home as long as they have access to the relevant technology. Alternatively, institutions that offer programmes under Distributed Learning can establish learner centres that are equipped with all the necessary technology and the students then access courses, information and other support through these centres.

The learning could therefore be said to be distributed in the sense that it can take place in different places using a variety of technology, enabling learners to participate and interact during the learning activities (Meyer-Peyton 2000:86).

2.2.7 On-Line Education

Increased access to computers, particularly to the Internet and the World Wide Web (www) technologies, has introduced concepts like On-line Education, Virtual Universities, Web-Based Education and E-Learning.

Jarvis (1999:195) defines the Virtual Learning Environment as:

> The use of electronic means to create a situation in which teaching and learning can occur when teachers and learners are separated from each other in space and time.

Bates (2000:173) also defines virtual universities in a similar manner although there seems to be controversy around the use of the label 'virtual' for literally translated, it means non-existent, unreal or artificial (Holmberg 2001:28). Perhaps it is for this controversy that On-line Education or Web-based Education is sometimes used to refer to the same form of education. Nevertheless, the growth and increase of access to computers and the Internet has enabled institutions to offer web-based courses to large numbers of students (Mason 2001:268, Schrum 2000:91,).

2.2.8 Conclusion

The many different designations that have been given to distance education have in many ways reflected the dominant mode of provision with each mode utilising different technologies (section 2.4) and permitting different levels of interaction. These designations have also varied from region to region and in some cases, the difference in meaning may be vague.

However, henceforth in this study, **distance education** will be used to refer to any of the forms discussed in this sub section unless in the discussion of specific issues it is required otherwise. This term distance education has been chosen because of its wide usage in Uganda and because to me, it is the one that elicits the least confusion and controversy.

2.3 DEVELOPMENTAL OVERVIEW

2.3.1 Introduction

As part of the effort to understand distance education, a developmental overview will be outlined in this section. Although this overview will be at a general and global level brief references to Uganda will be made. The more detailed outline of this development in Uganda will be covered in section 2.7 and in chapter 3 section 3.5.

2.3.2 History of Distance Education

According to Bates (1994:1574), "*correspondence teaching can be traced back at least as far as St. Paul's Epistles"*. Paul wrote a number of letters to different Christian groups giving instructions on how they should conduct themselves as Christians. It is for this reason that some people take this to be the first example of correspondence instruction, which was the precursor to present day distance education. Bates continues however to say that, in its modern form correspondence teaching began in the 19th Century.

On the contrary, Battenberg as quoted by Holmberg (1995a:47) says the earliest form of distance education may have been provided in 1728 by Caleb Phillips with his shorthand lessons, then in 1833 with composition writing lessons in Sweden, Lund and a few years later in 1840, the Isaac Pitman shorthand lessons through the post. The latter grew to become the Isaac Pitman Correspondence Colleges (Dinsdale as quoted by Holmberg 1995a:48).

However, distance education as it is largely practised today through formal institutions and universities has the University of South Africa (UNISA) as its pioneer. UNISA started as a University of Good Hope in 1873 *'as an examining body based on the model of the University of London'* (Holmberg 1995a:49). In 1962 the South African government established UNISA as a distance teaching university. Nonetheless, many believe (Perraton, Rumble, Holmberg, Robinson) that it was the establishment of the British Open University that gave distance education the impetus it has had to grow and become more acceptable. The next section now discusses some of the reasons for this growth.

2.3.3 Rationale for Distance Education

Distance Education is of growing interest to many institutions and educators and has developed a great deal in the last two - three decades. This growth is evident in the number of open and distance learning institutions that have since been opened, international conferences being organised and in the volume of literature now available on this subject.

The number of open universities has grown from only one Open University in 1969 to at least 40 today while a number of other previously traditional universities have also taken on distance education programmes thus becoming dual mode institutions. So, worldwide, it is believed that there are now a total of over 1,000 institutions providing

distance education programmes (Holmberg 2001:17 – 18, International Centre for Distance Learning (ICDL) 2003a:1, Robinson 1996:4).

The body of literature on distance education has also grown tremendously and according to ICDL (2003b:1) there are today *'…over 12,000 abstracts of books, journal articles, research reports, conference papers, dissertations and other types of literature relating to all aspects of the theory and practice of distance education*'.

The major reasons for this increased interest in distance education are the following:

- Growing demand for education.
- The need to provide equal access to education
- The changing nature of the typical university student
- As a strategy for meeting urgent needs for teachers
- Distance education is viewed as a more cost effective alternative of providing education
- Advances in technology have made it increasingly possible to run distance education programmes

Each of these will be briefly discussed here.

a) Distance Education and the demand for education

There are a number of reasons for the growing demand for education but one of these is the rapid growth in the population worldwide (Perraton 2000:3, Peters 1996:42, Saint 1992:xi). The world population is growing at the rate of 1.33% per year '…*adding an average of 78 million persons per year'* (United Nations 1999:1). It is therefore expected that the world population will be between 7.3 and 10.7 billion by 2050 with about 8.5 billion (80%) of this in the less developed countries. Between 1995 and 2015 alone, the population in the developing countries is expected to grow by nearly 1.5 billion!

Africa, particularly Sub Saharan Africa is worst hit because its population growth rate is the highest (2.36%)in the world compared with for instance Europe that has only 0.03%. Sub-Saharan Africa's population will therefore more than double in the next two decades (United Nations 1994:15, United Nations 1999:1). This is an enormous growth and in the face of poverty and lack in these less developed countries, there must certainly be more challenges in the provision of education to this huge population - in the provision of schools, colleges and universities.

The situation is equally challenging in Uganda where by 1975, the population was only about 10.8 million people but by 2001 this had grown to nearly 24 million people with about 50% of this below 15 years while only 2.6% is above 64 years (UNDP 2003:252). The majority of the population is therefore of school going age. In addition to this, there is an increasing number of adults returning to school.

Unfortunately, in spite of this enormous population growth (worldwide and in Uganda), the conventional schools, colleges and universities have not expanded at the same rate so as to adequately meet this increased demand for education. Governments have had therefore to find alternative means of meeting this demand and distance education is certainly an attractive alternative here because of the potential that it has to cater for larger numbers than traditional institutions. For example, Holmberg (2001:17) says that some open universities have *'…over 100,000 active students each year in tertiary education'.* Such figures are clearly impossible to accommodate in traditional institutions of learning.

b) Distance Education for equal access

Although school enrolments have been rising in a number of countries, there are still categories of people that do not easily get access to especially higher education. This includes the rural poor, women, displaced persons (refugees), and those geographically isolated (Saint 1999:12). Besides this, most education systems in developing countries are highly selective with fewer and fewer people receiving education as you go up the education ladder (Saint 1999:1). This is contrary to the world declaration on Education for All. According to this declaration everyone has a right to education so, selective systems of education violate the people's right to education.

Distance education has therefore been used as a means of addressing these inequalities (De Wolf 1994:1558, Holmberg 1995b:13, Rumble 1992:19). It has been used in countries with scattered populations to reach out to those who live in remote areas. New Zealand and Australia are such examples (De Wolf 1994:1558, Perraton 2000:136). In addition, distance education has been used to give people who may have for one reason or the other left school an opportunity to return to school. For example, in Sudan and Somalia distance education has been used for those displaced by war (Perraton 2000:172).

Another example is the Open University UK with '*an ideological statement that university education, with unimpeachable quality, should be open to all adults, regardless of their*

previous education or lack of it…' (Perraton 2000:10). Consequently, the OU, UK has as one of the elements of its vision to be *'open as to access'.* In so doing this university seeks to reach out to those desiring to receive university education regardless of their educational levels. As De Wolf (1994:1558) says giving such people a second chance to have education.

In Uganda also, the number of candidates qualifying for university education is higher than the number of places available, many of those who qualify are actually left out. For example, although Makerere University is often a first choice for all children who take the 'A' Level examinations, in 1999/2000 academic year 15,630 'A' Level candidates qualified for admission but of these, only 2,000 were admitted as government sponsored students and 7,816 admitted as private students. Thus a total of 5,814 eligible 'A' Level candidates were left out (Epelu-Opio 2000:5). Unfortunately, although Makerere has introduced evening programmes, this caters largely for those living in and around the University. This therefore was one of the reasons for the establishment of the External Degree Programme of Makerere University. It was meant to open up access so as to cater for the needs of adults desiring to return to education and to cater for the needs for those living far away from the University and unable to attend the evening programmes (CCE 1990:17).

In all these cases, distance and open learning can be said to be giving adults a second chance to have education and catering for the needs of those unable to attend school/university full time. It has therefore been used to open up access to education for those who would otherwise have not entered the system.

c) Distance Education for the changing nature of the university student

In many universities, the traditional university student was one who had received twelve to thirteen years of schooling. Many of the entrants were therefore directly from the high schools and were generally aged between 19 - 25 years. However, this is no longer the case. Today's student is likely to be a working adult, with a lot of previous experience, and one who will have expectations that go beyond what universities have always provided (Berge 2001a:6, Peters 1994:28, Robinson 1996:6).

Since distance and open learning permit a student to study while working and the student is not expected to spend many months in residence, many adults find this a convenient way of studying. Peters (1996: 45) says that this form of education does not

confine a student and so is less disruptive. Robinson (1996:6) argues in the same way when, while referring to the training of teachers by distance, she comments thus,

> Teachers can study while continuing to teach and schools are not depleted of teachers. Moreover it is less disruptive to teachers' lives, an important consideration for mature teachers with families, community obligations and second-income generating activities including food growing (often essential for low paid primary teachers).

In Uganda also, there has been a shift in the nature of the typical university student. A number of universities in the country are running evening programmes that permit the working class to study. For example, Uganda Martyrs' University already has a total of 500 students enrolled for Diploma in Advanced Education Management, Diploma in Democracy and Development Studies and Diploma in Banking Management (Uganda Martyrs' University 2003). Makerere University on the other hand runs various evening programmes that permit working adults to pursue undergraduate and post graduate programmes. For example, of all the students admitted for the B.Com (External), nearly 50% are working adults while all those admitted for the B.Ed (External) are working teachers. This reflects a change in the character of the university student.

This change in the nature of the university student has partly been because of changing work demands and therefore *'the changing learning needs of society'* (Bates 2000:8). Some of the needs that Bates (2000:10) identifies include:

- More jobs in the private sector particularly in the service industries.
- Highly mobile workforce.
- Increased automation in corporations, institutions and industries and
- The growth of new jobs.

All this implies that there must be retraining or retooling of the workforce. In other words there is need for lifelong learning and distance education can play a very central role in doing this.

Distance education has consequently grown because of its appeal to this new student that wants more flexible and independent programmes. Rumble (2000:1) while quoting Levine says that students want universities of convenience - universities that work like department stores, and are therefore easily available with programmes that are delivered during convenient hours '…*preferably around the clock'.* Epper (2001:3) reiterates the

same view for according her students want programmes that offer opportunity for the *'"anytime, anyplace" teaching and learning'.*

d) Distance Education for urgent need for teachers

Some of the earliest distance education programmes run were especially designed to meet urgent professional needs. Perraton (1993a) documents a number of case studies of teacher education programmes that have been run by distance education and most of them were programmes that were designed to meet urgent need for teachers. For example, The Zimbabwe Integrated Teacher Education Course (ZINTEC) was designed to train teachers because as Chivore (1993:42) says, *'expansion in the provision of education did not go hand in hand with an adequate supply of professionally trained teachers'.* To cope with the expansion, a huge number of untrained teachers were employed so ZINTEC was designed to *'meet the primary-teacher shortage through an in-service type of teacher education'* (Chivore 1993:42).

Tanzania's Teacher Training by Distance programme of the 1970s had similar beginnings. In this case too, Tanzania had expanded its primary education through the declaration of Universal Primary Education (UPE) but did not have enough teachers to run the schools so, distance education was used to meet the urgent need for teachers (Chale 1993:22). Similar programmes have been run in Sri Lanka, Indonesia and in Brazil (Nielsen and Tatto 1993:95-135, Oliveira and Orivel 1993: 69-94).
Distance Education has been used to train, retrain and upgrade teachers because many countries still have problems related to the supply of teachers and to teacher education. According to Perraton, Creed and Robinson (2002:7), the major problems in education in the world are shortages of teachers, large numbers of unqualified teachers and many teachers who need further professional education and training.

In Sub-Saharan Africa in particular, they identified the following major problems:

- Shortage of teachers in the face of increasing pupil numbers
- Reduced life expectancy of teachers as a result of AIDS
- Under-trained and untrained teachers in the school systems
- Poor quality training of teachers
- New education goals that pose a challenge to teachers and to teacher education (Perraton et al. (2002:7)

All the above challenges and problems imply that the world, and Sub-Saharan Africa in particular, need to plan and provide more and better quality teacher education. In the face of inadequate funding and the need to keep teachers in the systems working while training is being provided, distance education has been used and continues to be used as a viable option.

Uganda has also used distance education for purposes of meeting urgent needs for teachers. For example, from 1967, it was used for upgrading teachers, and later for training of clerks for the public service (Kaye, October 1970:1-2). Also, the Teacher Development and Management System (TDMS) is a scheme that was started to train teachers and headteachers for primary schools (Odaet and Higwira 1994, Makau April 2001:1).

Although the majority of the case studies sited are for teacher education, distance education has also been used to meet urgent professional needs in different fields as well. For example, the need for skilled people in information technologies has been identified in Europe and according to Brande (1993:54),

> One of the identified solutions to the skill shortage problem is increased training and retraining through technologies. Most studies refer to the need for a new learning concept and propose large structural efforts in distance and flexible learning throughout Europe

All this reveals that one of the major reasons for the growth of distance education has been the need to meet the knowledge or training gap for professionals and has specifically been used a lot to meet the need for teachers. Is it possible this is one of the reasons why there is little faith in the efficacy of distance education for anything else other than train teachers?

e) Distance Education as a cost efficient alternative

As mentioned already in section 2.3.3a, education is becoming increasingly expensive because of the increasing number of people to be catered for especially since in many developing countries, education is provided and funded by governments that are expected to meet the costs of accommodation, food, transport and other allowances to college and university students (Saint 1992:xii). In addition, Bates (2000:8) says universities are under a lot of pressure *'to do more with less'.* For example, in situations where student numbers are generally increasing while government subsidies are decreasing, universities are still expected to provide high quality relevant education that sometimes includes introducing more courses. This can no longer be afforded so,

governments and universities are seeking for more cost effective and cost efficient alternatives of providing education. Distance education is in this regard an attractive option.

To establish a distance education programme, there is no need for the kind of infrastructure needed to establish a conventional institution. There is no need for halls of residence, many classrooms, and there is no need to pay students travel allowances (Perraton 2000:118, Berge 2001a:9). This cuts down the costs of distance education. Unfortunately, there are not many cost analysis studies done (Orivel 1994:1567) but Perraton (2000:126 -127) presents some examples with indicative comparative costs and according to these studies distance education was cheaper in the case of Junior Secondary Education in Malawi and Zambia; India National Open School; and in Mexico Telesecundaria. Perraton (2000:137) however adds, that in cases where numbers were very low, and a high level of student support provided, distance education was more costly.

It is therefore clear that distance education can be more cost effective but it must be remembered that there are other factors that need to be taken into account as well. Rumble (2001a:73) for example gives the following list:

- The number of students enrolled
- The number of courses presented
- The frequency with which course materials are remade
- The media (text, audio, video, computer-based, face-to-face) and technology employed
- The cost structure of the chosen media/technology
- The quality of the materials produced (print quality, video formats, etc.)

Other writers (Bates 2000:128, Berge 2001b:19, Orivel 1994:1572, Robinson 1996:20-27,) have expressed this same view. They also add that distance education requires high initial investment for the production of study materials. Unfortunately, this is one of the issues ignored by a number of policy makers to the detriment of distance education; with the result that poor quality and inadequate services are provided. Often these initial costs are *'…ignored, underestimated, or underbudgeted' (*Bates 2000:122).

Ultimately, although distance education could have lower costs per student and therefore cost efficient, drop out rates and poor quality learning may mitigate against it making it less cost effective (Rumble 2001b:5). Orivel (1994:1573) however concludes,

> Unless a massive misallocation of resources occurs as a result of poor management decisions, distance education projects are most of the time cost-effective even though the advantage of economies of scale is offset by the higher cost of developing multimedia, self-instructional materials.

f) Advances in technology and Distance Education

One of the major characteristics of distance education is the element of separation of the teacher and the learner and the need therefore for technology to mediate this distance (Holmberg 2001:38, Keegan 1996:119, Moore 1996:24, Perraton 1982:4, Peters 1996:51, Rumble 1992:17). When this occurs, technology enables the teacher and the learner to overcome what Moore (1996) calls transactional distance. See section 2.5.3 for a full discussion on transactional distance.

The development of different forms of distance education has been associated with the dominating technology of the time (Garrison 1989:52, 1996:17). For example, the very first distance education programmes were basically correspondence programmes that were dependant on the print. Later, with the onset of radio and television, distance education programmes began to incorporate these technologies as well. Distance education has therefore expanded partly as a result of the advances in technology; for distance education and technology are inseparable (Amundsen 1996:67).

In all this development however, distance education can be said to have had generations as Bates (1994:1574), Garrison (1996:17) and Rumble 2001a:73) all say. Bates and Garrison talk of three generations but Rumble talks of four generations. They all however do agree that these generations overlap one another and there are therefore no longer any pure examples of generations.

The major generations are now discussed in the next sections. However, although Rumble (2001a:73) identifies four generations, only three shall be discussed here because the third generation seems to cater for what Rumble calls the fourth generation.

2.3.4 First Generation Distance Education

This is a generation of distance education programmes that are dominated by a single technology that is print, radio or television (Bates 1994:1574, Garrison 1996:17 and Rumble 2001a:73). The programmes of this generation date back to the days of St. Paul according to Bates (1994:1574) and to 1840 according to Rumble (2001a:73) and these programmes are characterised by very little interaction between the learner and the teacher and also very little between the students. However, where any interaction

takes place, it is mostly by mail. According to Bates (1994:1575), one of the examples of such a programme is the external degree of the University of London. In this programme, students received reading lists and sample examination papers. The tutors then marked these and the students eventually sat the same examination as the University of London internal students. All this happened with only minimal interaction by mail.

One of the major strengths of this form of presenting programmes is that, it is cost effective particularly for increasing access because any additional students do not require huge additional costs thus making such programmes cost effective if large numbers are enrolled (Garrison 1996:17). This may be attractive in Sub Saharan Africa because, many of the programmes that have been run have each used largely a single medium. For example, ZINTEC (Chivore 1993), the Tanzania Teacher Training by Distance programme (Chale 1993), MITEP and NITEP of Uganda all used mainly printed materials with occasional face-to-face sessions for support. On the other hand, the Mauritius College of the Air programmes relied on Radio while in Cote d'Ivoire the main medium was television (Perraton 1993b:8).

These first generation programmes, however, have some weaknesses the major one being lack of direct interaction between the learners and the teachers and amongst the learners. Distance education learners suffer isolation from the institution and from one another (Holmberg 2001:38, Keegan 1996:119, Perraton 1982:4, Rumble 1992:17) and as Moore (1996:22 - 27) says, there is therefore a psychological and communication space to be crossed. To him, the quality of the dialogue that takes place between the learner and the teacher determines the quality of the learning experience. A programme that gives no opportunity for dialogue therefore fails in addressing the problem of separation of the learner and the teacher with the attendant problem of learner isolation.

Bates (1994:1574) cites another weakness of such programmes. He points out that such programmes have had very low completion rates. Considering the place of student support today in distance education, (Robertshaw 2000:2 Rumble 1992:62-64, 2000:2) it is clear that with inadequate dialogue or interaction between the learner and the teacher, isolation will take its toll on the learner who may therefore fail to complete his course.

2.3.5 Second Generation Distance Education

Programmes in this generation use integrated multimedia approaches for providing their distance education courses. Rumble (2001a:73) calls this generation the multimedia distance education systems and also adds that such programmes became prevalent in the 1970s. Garrison (1996:18) on the other hand calls it the generation of teleconferencing. What is worth noting however is that in spite of the difference in nomenclature given, both agree on the presence of opportunity for dialogue between the learners and between the teachers and the learners. The Open University UK is such an example. When it opened in 1969, it started by straightway adopting this multimedia approach (Bates 1994:1575).

In this approach, institutions continue to use the one-way media like print, radio, TV and cassettes, but begin to incorporate two-way communication mainly correspondence mail, telephone and face-to-face sessions (Bates 1994:1575, Garrison 1996:18). Because of the presence now of higher degree of dialogue with the institution, Garrison (1996:18) says students lost some autonomy but gained *'quality interaction'*.

The other major features of programmes of this generation are high variable costs and an emphasis on curriculum planning and materials development (Bates 1994:1575). A lot of effort is put to the production of high quality study materials often using production teams that consist of subject and media experts. This is partly why there are often high initial variable costs. Thereafter, such institutions using this approach do not incur high variable costs. However, to justify the initial high variable costs, high student numbers are necessary.

Most of the open universities in Europe and Asia like the Open University (UK), the Indira Gandhi National Open University, and the Allama Iqbal Open University of Pakistan are examples of institutions whose programmes belong to this second generation. In Australia, Canada and Africa the examples of such institutions are largely dual mode institutions. That is institutions that are providing both distance and conventional educational programmes.

2.3.6 Third Generation Distance Education

These are programmes dominated by computer mediated communication and they date back to 1985 when computer mediated communication began to be used (Garrison 1996:18, Rumble 2001a:73). Rumble (2001a:73) calls them *'online distance education systems'* while Bates (1994:1576) says these are courses that are based on electronic

information technologies. All three, Bates (1994), Garrison (1996), and Rumble (2001a) agree that courses of this generation are dominated by computer technology and these courses have high levels of interaction between the learner and the teacher and also among the learners for, as Bates (1994:1575) says,

> These third-generation technologies, based on telecommunications and computers, provide far greater facility for two-way communication, and result in much more even communication between student and teacher (and also between students).

The most typical technologies used in such programmes are *'computer-conferencing or computer networking, and audio- and video-conferencing (including audio-graphics)* and they also include use of television to transmit lessons to remote classes sometimes with two-way television or with voice telephone (Bates 1994:1576).

A number of programmes have now been run using these third generation technologies and perhaps the United States of America (USA) is where there are the most examples. The University of Phoenix, Arizona (USA) *'uses computer networking for the delivery of postgraduate business course'* while the National Technological University uses satellite based technology to transmit courses to more than 300 sites in the USA (Bates 1994: 1576). Other than in the USA, a number of other European and Asian institutions are now using these technologies to run various courses while a number like the Open University, UK are using the technology for student support (Rumble 2000:5).

Unfortunately there are hardly any examples of the application of these technologies in Sub Saharan Africa. However, there are modest efforts by the African Virtual University to integrate satellite technology in the transmission of programmes. Also, the World Links (WorLD) school pilot project is using this technology to link up schools in developing countries with schools in Europe, Canada and USA (Aguti 2000:260, Perraton 2000:146).

As mentioned, one of the major advantages of programmes using third generation technologies is the high potential for better interaction between the learner and the teacher and also among learners. However, the variable costs of these programmes are often very high because every additional learner implies more costs in communication. Also in Sub Saharan Africa, the fear of cost of the technologies has been a major deterrent for as Perraton (2000:143) says of the computer,

> …while it allows easy communication between tutor and student, it is available only to the relatively privileged and demands a higher level of investment than fax.

See also figure 2.6 on relationship between technology, cost, and level of interaction in the teaching/learning contract.

Distance education has clearly come a long way from the first correspondence lessons run by Pitman and this development is closely tied to technology. Bates (1994:1574) says, each generation of distance education reflects the major technological innovations of the time. It is therefore clear that distance education has had generations and different designations given to it depending on the major features of each as already discussed in section 2.2 however, distance education has faced and continues to face a number of challenges. The next section now focuses of some of these challenges.

2.3.7 Challenges faced by Distance Education

In spite of all the interest that distance education has generated and in spite of its growth, a number of criticisms have been levelled against it. Its growth cannot therefore be said to have been altogether smooth. As a result of these problems, distance education has been seen as a second rate option to traditional classroom based education (Paul 1990:59). Unfortunately, this kind of thinking is found amongst learners, parents, and in some countries amongst Ministry of Education officials as well (Perraton 2000:82, 199). Distance education therefore needs to establish its legitimacy.

Some of the reasons for taking distance education as a second rate option are:

- High drop-out rates in distance education
- That distance education promotes surface learning
- That distance education is also elitist

Each of these will now be discussed in a little detail.

a) High drop-out rates in Distance Education

One of the major reasons for advocating for distance education has been that it opens up access (De Wolf 1994:1558, Holmberg 1986:30, Rumble 1992:19). Unfortunately, although most distance education systems register high enrolment figures, completion rates are believed to be generally low and dropout rates therefore unacceptably high (Holmberg 2001:73, Keegan and Rumble 1982:228, Paul 1990:79, Perraton 2000:12, Perraton et al. 2001:30, Tooth 2000:2). In his concluding remarks, Perraton (2000:196) says,

> Dropout rates so reduce the efficiency of distance education in terms of successful completers or graduates that efficient programmes seem to be the exception rather than the rule.

It is therefore not sufficient for any distance education programme to record high enrolments; this must be followed by high completion rates. This is a major challenge to distance education.

However, as Perraton et al. (2002:12) conclude,

> A significant proportion of students give up along the way and do not complete their courses. But this is true for all students working part-time and not distinguishing mark of students learning at a distance.

Table 2.1 gives examples of dropout rates of some distance education programmes.

Table 2.1: Drop-out rates in some Distance and Open Learning Institutions

Institution	**Course**	**Year**	**Drop-out Rate**
University of Nairobi[a]	B.Ed	Late 1980s	46
Bangladesh Open University[b]	B.ED	1996	48
Indira Gandhi National Open University[b]	Management Programmes	1987 - 93	60
Makerere University[c]	B.Ed	1991 - 2001	39.7
Makerere University[c]	B.Com	1991 - 2001	44.9

Source:

[a] Perraton (2000:75)
[b] Perraton (2000:101)
[c] Department of Distance Education Records, Makerere University

So, should Distance Education sit back because other programmes have a similar problem of significant dropouts? This would be neither right nor justifiable; something should instead be done to address the dropout problem.

However, one weakness with the working out of these dropout rates has been, as Keegan and Rumble (1982:228) say that, the comparison is often with traditional universities yet the student populations are different. To them, perhaps the comparison if any should have been between distance education and part-time students. Also, in many distance education programmes, there is always a group of 'non-starters'. That is students who apply to join programmes, enrol but never really start studying. Such numbers boost the numbers of dropouts in programmes.

This matter is complicated further by lack of clear interpretation of what a dropout is. This could vary from institution to institution. A dropout could therefore be any of the following:

- A student who registers but leaves the programme without submitting the first assignment.
- A student who leaves the programme having completed all the assignments but without sitting any examination
- A student who leaves the programme having completed all the assignments but without sitting all the examinations
- A student who leaves the programme after completing all the assignments, sitting all the examinations but does not pass some or all of the subjects enrolled for.

On the other hand, the learner's motive of joining a particular programme may also impact dropout rates. For example, if a learner joins a particular programme to gain specific knowledge and skills, and after taking only a few courses achieves these objectives and so decides to discontinue the programme. Is such a student a dropout? Whilst the institution may count such a learner a dropout, the learner himself/herself may not think so.

Consequently, care is vital while discussing and comparing dropout rates.

b) Distance Education as promoting surface learning

One of the greatest credits given to distance education is that most of the programmes have high quality study materials. However, fears have been expressed that distance education may be excellent for the distribution of information and delivery of facts, but that it does not effectively promote deeper learning and the acquisition of critical thinking skills (Bates 1994:1577, Garrison 1996:12, Henri and Kaye 1993:27-28, Holmberg 1993:331, Paul 1990:85, Perraton 2000:12). Holmberg (1993:331) says,

> A self-contained course, which does not cause students to consult other sources of knowledge, may on the one hand be very effective, but on the other hand, it may not engage students in a scrutiny of arguments and develop their thinking.

So, whereas distance education programmes, have worked hard at developing study materials and providing students self-contained courses, this same practice is being

feared to lead to what Perraton (2000:12) calls *'rote learning'* and what Bates (1994:1577) calls *'lack of critical thinking'*. Also, Henri and Kaye (1993:28) say that this can lead to standardisation of knowledge. That is prescription of what constitutes knowledge and the learner therefore looses the autonomy to direct his/her own learning.

Any poor education programme that does not give its learners opportunity to actively participate in the learning task will certainly fail to promote deep learning. This therefore is not the preserve of distance education alone! For as Garrison (1996:12) says,

> …higher-level cognitive goals however, demand opportunities to negotiate learning objectives, encourage students to analyse critically course content for the purpose of constructing meaning.

This is what all education should be regardless of the mode of provision.

c) Distance Education as elitist

As mentioned earlier in sub section 2.3.3, distance education has grown as a result of its potential to increase access. However, it has nevertheless been accused of continuing, like the traditional school system, to be elitist. Most distance education programmes do not have entirely open access. Instead, there are restrictions as a result of entry requirements, fees levied, access to study materials and technology used. According to Henri and Kaye (1993:27), this implies that distance education programmes also shut out the very people the programmes were meant to reach.

So true, distance education has grown in terms of institutions running distance education programmes, actual programmes being run, and students being reached; and in the words of Holmberg (2001:11),

> Distance education is thus no longer either, unknown or exceptional, but constitutes a recognised part of the educational services provided in most parts of the world.

However, this growth is in the midst of criticisms about the quality of the programmes offered and the concerns about the high dropout numbers registered. Some of these criticisms are a result of bias about distance education and also as a result of judging distance education using traditional school type education as the yardstick.

It has been implied here that distance education has grown because of the advances in technology. The next section focuses on ICTs in distance education.

2.4 INFORMATION COMMUNICATION TECHNOLOGIES (ICTs) IN DISTANCE EDUCATION

2.4.1 Introduction

In section 2.3.2 f, it was pointed out that one of the reasons for the growth of distance education was the advances made in technology. Each of the generations of distance education has associated with its growth, particular technology of the time (Garrison, 1996:17) (sections 2.3.4 – 2.3.6). It is for this reason that Amundsen (1996:67) remarks that distance education and technology therefore seem to be inseparable. Other writers also point out that distance education will continue to depend on technology and particularly on electronic communication systems (Daniel 1997:50, Peters 1996:51, Verduin and Clark 1991:84). As already said, technology is crucial for the mediation of learning in all distance education programmes. To run its teacher education distance education programmes cost effectively, Uganda will have to consider the integration of technology in an educationally responsible way.

2.4.2 Importance of ICTs in Distance Education

ICTS are important in distance education and this is largely due to the number of functions that technology can perform. A lot has now been written on what these functions can be (Bates 1994:1576–77, Bates 2000:16, Moore 1996:24-32, Paul 1990:121-127, Peters 1996:51, Tschang and Senta 2001:5-6). Some of these functions will now be discussed.

a) Increasing access to education

The use of technology enables institutions to reach out to more people than would otherwise be reached in traditional internal programmes. According to Moore (1996:24), Peters (1996:51), and Bates (2000:16), technology enables the teacher and learner to bridge the distance between them. In this way, distance education is able to reach beyond distances. However, as Tschang and Senta (2001:6) point out,

> While it is certain that many learners will learn more and more learners will be reached by new forms of virtual education, other less privileged learners, such as poorer people, could also continue to be shut out because they cannot connect to the new technological infrastructure…

So, yes, technology is crucial in enabling distance education reach out to more and more people, but poor choice of technology could shut out the very people that are meant to be reached.

b) Mediation of learning

According to Tschang and Senta (2001:6), technology can be used to get the *'…right types of content and learning to the individuals…'* Technology has always enabled distance educators to produce study materials and get these to the learners. Desktop publishing has particularly been helpful for the production of study materials in quicker and cheaper ways. In addition, with access to Internet, World Wide Web (www), and with the use of e-mail services, materials can now be delivered to learners much faster than before; and these same tools can be used to increase interaction between students and their tutors and amongst students themselves (Epper 2001:7, Paul 1990:122, and also Tschang and Senta 2001:6).

c) Improvement of teaching and learning

Tschang and Senta (2001:6) as well as Bates (2000:16) believe that the use of ICTs helps improve learning. Moore (1996:24 -32) who believes that, technology can be used for inter-learner dialogue, and to enhance dialogue between the learner and the tutor also echoes this view. To him, this has the effect of improving the quality of teaching and learning. In this regard, technology can then be said to act as an enabler of learning (Tschang and Senta 2001:6). Epper (2001:6) shares the same view and adds that *'…intelligent use of technology can really improve the quality of teaching'.* So, although the use of ICTs *per se* does not necessarily lead to improved teaching/learning careful and well-planned integration of ICTs has the potential of improving both teaching and learning.

In addition, in a world where knowledge and skills in the use of particularly new media is important, integrating ICTs in the teaching/learning situation prepares *'students for a world where information technology is likely to be central to their work and everyday lives'* (Bates 2000:16).

d) Better management and co-ordination

Especially with computers, records can be kept and maintained and this can be used for better management and co-ordination of activities. For example, student records can be kept on-line with both students and staff able to access these records whenever necessary (Paul 1990: 124).

In spite of all this potential that technology has in distance education, Garrison (1996:19) cautions that it is dangerous for distance educators to focus on technology. Juma (2001:294) reiterates this when she says, *'it has to be emphasized that it would be*

unwise to apply media simply because it is available'. So the onus is on the distance educators to always carefully consider the technology or media and its instructional and teaching potential. Bates (1994:1577) however points out that, there is no empirical evidence to suggest that one media has any pedagogical advantages over another. Instead, Bates (1994:1577) suggests that instead choice should be made only after careful thought and after taking into consideration a number of factors. Some of these factors will now be elaborated upon.

2.4.3 Factors affecting choice of technology

a) Pedagogical factors

The nature and structure of the subject to be taught is likely to affect the choice of the technology to be used. It will therefore be necessary to consider for example:

- Course goals and objectives;
- Structure of the course;
- Expected course activities; and
- Number of students expected for the particular course. (Heidt 1989:396)

The technology chosen should support the fulfilment of all these (Meyer-Peyton 2000:84). She also adds that, *'…it is vital to note that the technology should not drive the course – the technology should be the vehicle for the course.'* It therefore becomes imperative that the technology chosen should adequately 'transport' the course. According to Juma, (2001:294) *'the chief criterion should not be the availability or access to media, but their instructional potential and teaching effectiveness.'*

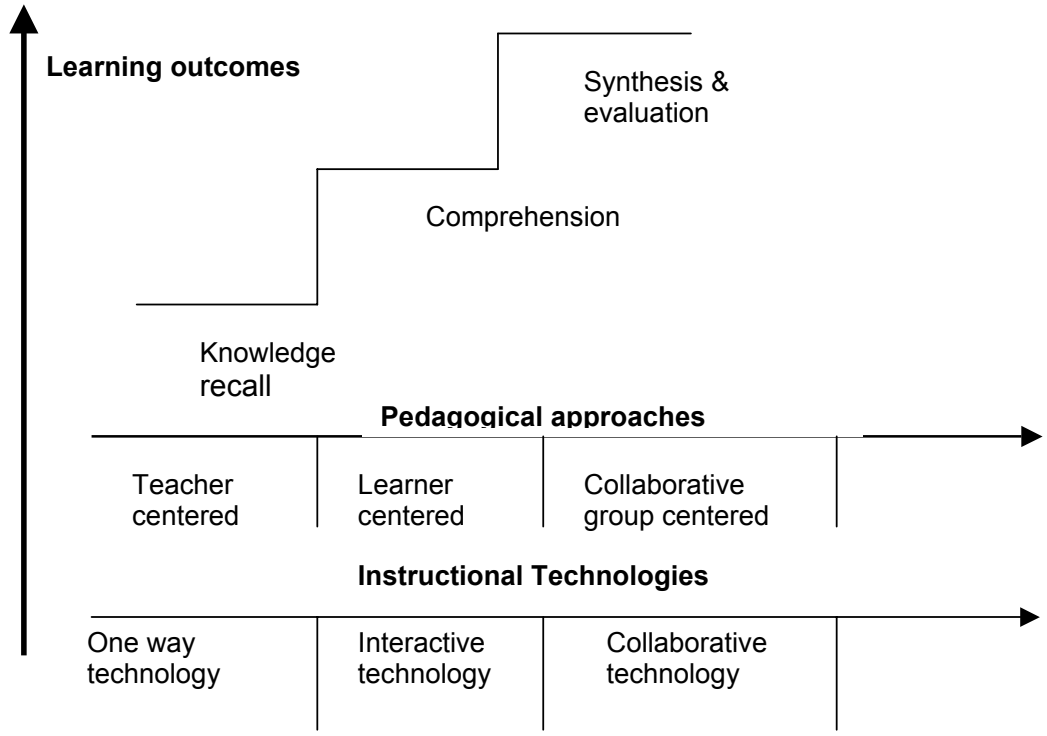
As already mentioned, although Bates (1994:1577, 2000:199) points out that there is no evidence that one technology has pedagogical advantages over another, how technology is used is likely to impact learning. For as Daniel (1997:147) says, *'technologies differ widely in their capacity to present content or inculcate skills'.* Mcloughlin and Oliver (1999:37) agree with this when they say,

> the uses and applications of technology can support learning outcomes, depending on the instructional approach adopted. Communications technologies differ in the degree to which they support interaction, dialogue and learning.'

For example, although radio and audiocassette are similar, changing from radio to audiocassette is likely to affect the level of control a learner has over the learning experience. Also, since with audio a learner can rewind and listen to the tape again and

again, difficult concepts can be reviewed and possibly understood better. Mcloughlin and Oliver (1999:37) illustrate this interaction diagrammatically as shown in figure 2.1.

Figure 2.1: The interaction between learning outcomes, pedagogies and technologies



Source: Mcloughlin and Oliver 1999:37

This model clearly presents the relationship between the technology chosen and the learner outcomes that could be obtained. For example, one-way technology like print for instance is likely to use a more teacher centred approach and will be best suited for recall of knowledge whereas interactive technologies like interactive television or video conferencing will be learner centred and will promote higher learner outcomes such as comprehension.

It is therefore clear that technology chosen should be appropriate for the type of learning outcomes and methods to be used in the study of a specific course. To maximise the benefits of technology, it would therefore be appropriate to use a combination of technology especially since at higher level a single course is likely to have different demands of learning outcomes. It is common for instance for a course to require recall at one level but demand comprehension and synthesis on another level. So whereas what Mcloughlin and Oliver (1999:37) present in figure 2.1 is a good guide to

understanding the interaction between learning outcomes, pedagogies and technologies, it should be remembered that there are no 'pure' demands from courses.

b) Access to institutions and students

Access to technology is likely to affect the choice of technology to be used in any programme. So, however educationally effective the technology is likely to be, if the staff and students do not have access to it, a decision to use it is likely to only lead to frustrations and failure. For as Bates (1994:1577) says, *'Distance education course designers are reluctant to use technologies that are not accessible to nearly all the potential students, because that limits access to the course…'*

The access here should include access to all the hardware, software and skills required to utilise the technology. For example, if the course is to be offered on-line, students and staff should have access to computers and accessories, software necessary for accessing the courses and skills for use of all these; because *'…if students experience frustration with the technology, they will drop out'* (Meyer-Peyton 2000:85).

However, where access to technology for students use is limited, the option of using learner centres should be explored (Bates 1994:1577, De Wolf 1994:1561). Access to the chosen technology is therefore vital.

c) Cost of the technology

Distance education is believed to be cheaper but only in the long run because start up costs are often high. Some of the start up costs are likely to be high as a result of investments in technology to be used (Bates 2000:19, Berge 2001b:19, Orivel 1994:1572), and as Meyer-Peyton (2000:85) says, the cost of the technology must be researched before any decision to use it is reached. Some of the cost elements to be considered include:

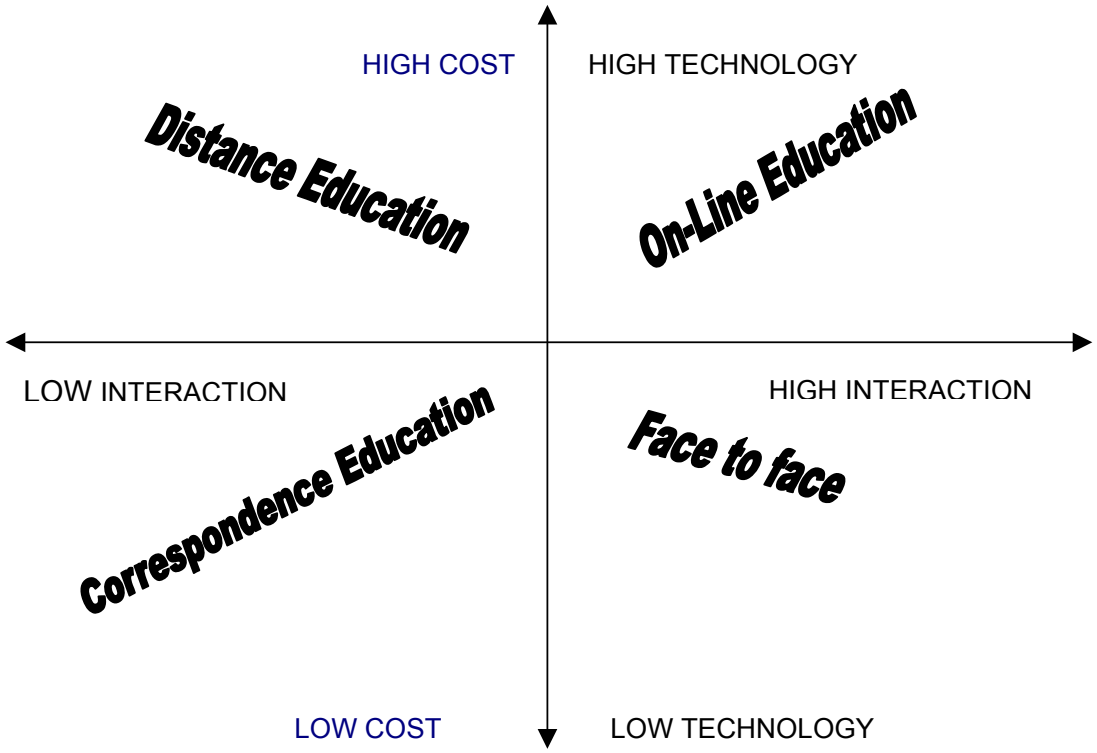
- Initial cost of purchase of technology
- Upgrades and maintenance of technology
- Spares and replacement of technology
- Technical staff to run and maintain technology
- Consumables
- Training of staff and students in the use of technology

Cost to the student is another factor that needs to be borne in mind for as Daniel (1997:100) says, *'when universities move to technology based teaching methods,*

students are likely to face additional expenses as well as the challenge of change'. So the institution should consider how much it would cost the students to either purchase the necessary technology or use the technology. For example, web-based courses transfer a lot of costs to students. Since reading text on-line is tiresome, inconvenient and expensive, a lot of printing and telephone costs are transferred to students (Holmberg 2001:53). This can marginalize the poor students.

It should also be remembered that the more sophisticated the technology the more costly it is likely to be. For example, print and radio are low technologies. They are less sophisticated than computer technologies and so are likely to be cheaper but unlike the computer, the radio and print will only permit minimal interaction. In the case of Correspondence Education and because of dependence on print material, which is low technology, there would be low interaction and low cost. Figure 2.2 illustrates this relationship between sophistication of technology, cost, and level of interaction. Face to face programmes have been included in this diagram for comparative purposes especially since distance education is often judged using face-to-face programmes as a yardstick.

Figure 2.2: Cost in different forms of Distance Education



In addition to this, the contribution of the technology to the teaching/learning experience should also be taken into account. For example, use of multimedia technologies in a course may imply high financial costs but because the quality of learner involvement and participation in the course is high and the dropout rate likely to be lower, a decision could be taken to invest in such technology (Rumble 2001a:80).

d) Politics

This factor may be a very subtle one and therefore one difficult to discuss or analyse. It is important that an institution wishing to integrate ICTs has commitment to its use for as Bates (2001:142) says,*' institutions without formal commitment to the use of instructional technology in teaching and learning are less likely to have policies for faculty development in this area'.* The political will of an institution is therefore crucial.

Also, the political climate within which a particular institution is operating is likely to influence the choice of media made. For example, a repressive government is likely to object to the use of technology that is likely to give learners more independence and autonomy. It will probably want to use the technology that can be easily controlled and monitored by government.

Related to this are decisions taken depending on what is politically correct. A broadcast medium like radio or television could be chosen so as to reach masses and satisfy demands for education. In China for example, according to Perraton (2000:140), the Chinese Radio and Television University system uses broadcasts because, as he says, *'the centralised management of education, and scale of demand, make a dedicated broadcasting system politically and economically realistic in China.'* He also concludes, again with regard to broadcasting saying, *'access to broadcasting has been a function of political control'.* In many countries, this situation may not strongly continue with the advent of FM radio stations although state radio and TV stations in most of the developing countries remain the ones with the widest coverage.

In addition to this all, there is currently a lot of pressure on governments and institutions to integrate modern ICTs and in Uganda, some projects have been initiated to utilise this (Aguti 2000:260-261). However particularly in developing countries, a few questions could be raised with regard to decisions on the choice of technology:

- What role does the interest of a negotiating government official have on the final decision of the technology chosen?
- What about the donor agencies and corporate companies, how far do they influence decisions on the choice of technology finally adopted? For example, according to Holmes, et al. (1993:138), when Nepal was planning to launch the Radio Education Teacher Training Project in 1978, the decision to use radio was taken partly because the local United States Agency for International Development (USAID) had interest in educational radio.

Bates (2000:18) refers to Postman (1992) and Noble (1997, 1998) who are passionate about this last point and actually believe that the emphasis on technology is all a *'hype'.* In Bates' (2000:18) words they see it as '*…a conspiracy by multinational companies and big business to sell technology and to hook young people forever as technology consumers'.*

In the next sections, each of the different technologies will now be discussed, highlighting some of their strengths and weaknesses. This is important especially if one is to identify the different technologies that can be used for teacher education in Uganda.

2.4.4 Print

In the growth of distance education, print has been used since it began as correspondence education (De Wolf 1994:1557, Verduin and Clark 1991:81). It has particularly been used for the provision of various study materials to distance learners (De Wolf 1994:1560, Verduin and Clark 1991:57 - 82). These study materials include:

- Textbooks
- Readers
- Study guides that are normally developed to accompany either textbooks or readers. The latter are actually a collection of articles selected as essential readings.
- Handouts and extracts from various literature
- Especially designed study materials. These are normally developed as self-contained courses written in a style appropriate for distance learners.

According to Verduin and Clark (1991:82), '*print has always been the dominant medium in distance education and will continue to be the most-used form of delivery in the foreseeable future'.* Even with the growth of electronic media, although the material may be distributed electronically, it is often still printed for study purposes because reading texts on-line is tiresome.

Apart from for purposes of providing study materials to learners, print has also been used to facilitate communication between the organising institution and its students. This can be in form of circulars or individual letters sent to the learners. Print has been greatly used because of some of its major advantages over other technology, although its disadvantages make it inappropriate for certain forms of learning.

Verduin and Clark (1991:82) and Sparkes (1996:139) say that print is effective for the dissemination of new information and ideas and it is for this reason that Holmberg (1993:335) believes that print is the best option for serious study. Besides all this, learners can use print in a more flexible manner (Verduin and Clark 1991:82). The learner can choose when and how to utilise the print material. This is in sharp contrast for instance to radio broadcasts that would have strict times and pace of presentation.

Perhaps one of the other attractive reasons for the use of print is the cost implication. Print is one of the cheapest technology options since print materials can be used again and again (Garrison 1996:17). In addition, production of study materials using computers has made it easier for these materials to be created, and updated.

As a result of all this, a number of distance education institutions continue to use print based materials as the core study packages; for example, Open University, (UK), UNISA, Fern Universität - Germany, Makerere University, and Indira Gandhi National Open University. However, in spite of this successful use of print, some disadvantages have been identified. According to Holmberg (1993:335), and Verduin and Clark (1991:82), communication between learners and their institutions is often slow because of reliance on print based communication. This they say is discouraging to students. In addition to this, Moore (1993:23) says that print does not often encourage interaction between learners yet this is a crucial part of the learning act. To Moore, it is necessary for learners to interact with one another because this enriches their learning.

Verduin and Clark (1991:82) identify the other problems. According to them, print is inadequate for the presentation of some skills. In teacher education for instance, print is inadequate for purposes of acquiring practical classroom skills. For as Robinson (1996:9) says, although most of the teacher education programmes in Africa have relied on print, the *'…practicum presents distance educators with major logistical problems of organisation and management'.*

Print has also been criticised for encouraging only accumulation of facts and information but not promoting critical thinking skills (Bates 1994:1577, Garrison 1996:12, Henri and Kaye 1993:27 -28, Holmberg 1993:331, Paul 1990:85, Perraton 2000:12). This may not be necessarily true because what is achieved depends on what the study materials present and how the content is presented. It should still be possible, in the written materials, to present content in an interactive and stimulating manner through use of didactic conversation.

2.4.5 Radio and audio

Radio is a one-way communication medium that can be used for a variety of purposes and also has a very high potential for mass education (Bates 1982:281). Today however, the radio can include two-way communication through phone in systems.

The radio has been used for a variety of distance education programmes. Perhaps the biggest has been the Nepal Radio Education Teacher Training Project that was run in Nepal to meet the need for primary school teachers. Between 1980 and 1987, a total of 6,429 teachers without the School Leaving Certificate enrolled in this project, 5,371 completed the course of which only 3,478 (54.1%) passed the examinations (Holmes et al. 1993:146).

Radio has been used in distance education due to a number of advantages it has. Radio broadcast has, as already mentioned, a very high potential for mass education and can be used to reach inaccessible areas. Therefore, where large numbers in remote areas are to be reached, it lends itself easily to this use through radio broadcasts. This was the case in Nepal for as Holmes et al. (1993:141) say,

> Given Nepal's rugged, mountainous terrain and the absence of a reliable transportation system, making delivery of printed materials highly problematic, it was proposed that radio carry a larger share of the instructional burden than was typically the case in other distance education systems.

Also according to Bates (1982:281), because radio is portable and can be used in non-electrified areas, it lends itself to easy use in many areas. When combined with audio, the programmes can be recorded and later listened to at the students' own leisure, thus giving the learner increased control over learning in terms of time and place of learning. Nevertheless, although radio and audiocassettes have been used for mass education, they still have a number of limitations that make them not entirely appropriate.

Access to programmes on radio is dependant on reception of the radio signal. This is sometimes problematic if the signal is weak. For example, in Uganda, people living along the Uganda - Kenya boarder receive Voice of Kenya much more easily than Radio Uganda, which is the national programme with a wider reach. So in cases where Radio Uganda is used, the intended audience may not be entirely reached.

Related to this is the fact that radio programmes tend to have fixed hours of transmission (Bates 1982:281) and this may pose a challenge to both the institution and to the student. Radio often has 'peak' hours; that is hours where the majority of the public is likely to be available. Unfortunately, such hours may be too costly for institutions if airtime is to be paid for. Programmes may therefore end up being aired at 'unfriendly' hours. This handicap can only be overcome if students can record these programmes for later use. It is also easy for an institution to relapse into the practice of continuing to produce programmes, probably poor programmes, so as to fill the slots (Bates 1982:181).

2.4.6 Television and video

Television (TV) has also been used for educational purposes in a variety of ways and in distance education, it has been used on both small and large scale. It has for example been used by Mexico's Telesecundaria Programme to reach rural based learners (Perraton and Creed 2001:23), and perhaps the widest use of the TV and videocassettes is the Chinese universities where *'by 1990 the television universities had enrolled 1.83 million students, produced 1.25 million graduates and had 420 students on roll'* (Perraton 2000:85).

TV can be enriched through use of phone in programmes to make it two-way communication, can be transmitted via satellite and this ensures much wider coverage and it can be run as video-conferencing. Alternatively, TV programmes can be recorded on videocassettes or digital video disks (DVD) and distributed to learners. Some Non Governmental Organisations (NGOs) in Peru are running video forums where learners gather together and watch a programme and this is then followed by a discussion (Perraton and Creed 2001:29). TV and video have attracted a lot of attention due to a number of advantages associated with their use.

One of the major attractions for utilising TV is its potential to reach high numbers. The broadcast facility ensures that large masses can be reached. As already mentioned, China has been able to reach millions using the TV. In addition, it lends itself to the

possibility of being enriched and made interactive through the phone in facility (Perraton 2000:85).

In the sciences, it can be imaginatively used to record processes that either take place beyond the naked eye or that take place too fast for the entire process to be followed if viewed particularly because of its rich visual appeal (Heinich et al. 2002:195, Perraton et al. 2002:41). In developing countries where there is general lack of science teachers and good study materials, well-developed and recorded lessons could be used to supplement teaching. However in spite of these strengths, TV has not been so widely used in most developing countries because of a number of problems associated with it. One of its major disadvantages is its cost. Start up costs are very high because of equipment and a network of booster stations and as Verduin and Clark (1991:74) say, '…*except for computer use, TV broadcasting has the highest start up costs and overhead'*. Perraton et al. (2002:39) actually say that when compared to radio, TV costs ten times more!

Partly due to the cost of the equipment and partly due to reception problems, TV is not accessible to all. Spronk (2001:19 while quoting UNDP 1997) says that in developing countries, there are only 140 TV sets per 1,000 people while in the developed countries there are 560 TV sets for every 1,000 people. With this kind of distribution, it becomes extremely difficult to ensure access. The distribution may have improved since 1997 but many still do not have access.

Also, where broadcasts are run and video recordings not provided, transmission times may not be necessarily appropriate to the learners. And lastly but not least, TV has also been accused of encouraging passive learning which is not very productive especially if the programmes are being run as one-way communication (Perraton et al. 2002:41).

2.4.7 Computers

Computers are the most recent addition to distance education and they have had a huge impact on the provision of distance education. As earlier discussed in section 2.2, this growth is partly responsible for the growth of new forms of distance education that were described variously as Flexible learning, Distributed Learning and On-Line learning. This is because computers provide many possibilities of both one-way and two-way communication. Besides, this can also be synchronous or asynchronous (Cao 2000:2, Garrison 1989:78, Hutchison 2001:94, Jegede 2000:50, Mcloughlin and Oliver 1999:37).

This growing use of computers in education in general and in distance education in particular is due to the number of advantages it has.

a) Advantages of computers

As already mentioned, computers are versatile and can be used for a variety of ways. One of the commonest uses of computers is for word processing and for general information processing and storage (Garrison 1989:78). However, with additional tools like CD-ROM, Internet, World Wide Web (www), and multimedia, computers can then be then used for wider purposes.

For example, access to Internet provides possibilities for:

- *'wide array of knowledge'* and instructional materials. This access opens the way for richer sources of material for electronic research (Hutchison 2001:96, 110).
- Using Internet for provision of courses also enables students to engage in self-paced learning since they will now have the option to study wherever and whenever they want to do so. (Cao 2000:4, Verduin and Clark 1991:78).
- Using the multimedia options computers provide, it is also possible to have rich simulations that could be used for teaching/learning of difficult or abstract concepts (Cao 2000:4, Hutchison 2001:96, 110). With this it is now possible therefore to illustrate scientific concepts, demonstrate experiments and present three-dimensional figures.
- Internet also makes it possible for 'just-in-time' interaction between students and the institution and also amongst students. Thus overcoming isolation and the distance barrier. This can be achieved using e-mail, chat rooms, threaded discussions, and bulletin boards (Cao 2000:2, Hutchison 2001:94, 110).

All this can have the overall impact of enriching teaching and learning. However, in spite of all this, there are some problems associated with use of computers in distance education.

b) Disadvantages of computers

Computer technology has been getting cheaper and cheaper; however, computers are still too costly for majority of persons particularly in developing countries. As Verduin and Clark (1991:74, 79), said at the start of the last decade,

> 'except for computer use, TV broadcasting has the highest start up costs and overhead… Unless public access is provided, only the relatively affluent will be able to afford computer-based distance education'

Unfortunately this is still true today even in countries like USA where access to computers has improved greatly. For example, while referring to students' access to computers in Bellevue Community College (BCC) in USA, Hutchison (2001:97) says,

> …student access to technology has become a major concern for the college. Even though more and more students have computers and Internet accounts at home or elsewhere, BCC acknowledges the responsibility to provide sufficient access on campus'

Apart from the cost implications of using computers in distance education, access to Internet also poses different challenges. Searching or 'surfing' the Internet can be a nightmare because of the sheer volume of information available. As Cao (2000:7) says, *'… this maze-like trek through cyberspace has the potential to cause anxiety in numerous individuals'.* To benefit from this vast resource requires high-speed computers, high bandwidth and adequate skills in the navigation of Internet both of which are not often available to the majority in developing countries.

While computer technology has been growing, the threat of virus attacks has also been growing. This in addition to the skills required to keep, run and maintain the technology are an added demand. Institutions choosing to use computers need to be vigilant about protecting their equipment from virus attacks and they also need expertise that can competently use, run and maintain the technology.

2.5 SOME THEORIES UNDERPINNING DISTANCE EDUCATION

2.5.1 Introduction

An Understanding of the different theories and their implications to distance education will be important in planning for teacher education by distance in Uganda because the model of distance education adopted for any programme is likely to be affected to some degree by the theory informing the thinking of the planners.

A number of writers have put forward theories on distance education and these include: O. Peters , M. Moore, B. Holmberg, D. Keegan, D.R. Garrison, D. Shale, M. Baynton, D. Rowntree, and C.A Wedemeyer. However, in this study only some of these theories will be discussed because of their importance to distance education and to teacher education in particular. Some of the key issues brought out by these theories are likely to impact this study in a number of ways. These theories are:

- Otto Peters' theory of distance education as an Industrialised form of teaching. Peters' analysis of distance teaching and the manner in which he relates it to an industrial process is relevant to current practices in distance education. Also, he has now stretched this theory to post industrialism and raises a number of pertinent issues that distance educators need to carefully think about if distance education is to remain relevant to the changing society.
- Michael Moore's theory of transactional distance. The question of distance continues to be a major one in distance education and so a theory that raises issues related to how best to negotiate this distance continues to be of importance to any distance education provider.
- Borje Holmberg' theory of didactic conversation. Holmberg's theory draws particular attention to the place of communication between the learner and the study material, learner and other learners and between the learner and the institution. This is key in any distance education and therefore needs to be examined.
- Desmond Keegan's theory of reintegration of teaching and learning acts. Like Michael Moore and Holmberg, Keegan's concern of distance and how distance education deals with this distance is also of interest.
- Derek Rowntree's theory of Self Instruction. Although in this presentation, Rowntree does not explore all aspects of distance education and cannot perhaps be said to have put forward a theory of distance education, his focus on self instruction material is important since most distance education programmes still rely on print based 'self-study' materials.

The next sub sections therefore outline these different theories and present some of the implications of these theories to distance education in general and distance education in Uganda in particular.

2.5.2 Otto Peters: Distance Education as an Industrialised Form Of Teaching

This theory was first published in 1967 as a monograph entitled Das Fernstädium an Universitäten und Hochschulen: Didaktische Struktur und Vergleichende Interpretation: Ein Beitrag zur Theorie der Fernlehre. (Distance Education at Universities and Higher Education Institutions: Didactical Structure and Comparative Analysis - Contribution to the Theory of Distance Teaching).

According to Peters (1994:59), distance education has some structural similarities with other forms of didactic instruction. To him distance education is therefore a combination of many teaching processes. Some of the processes he discusses include:

- Instruction using printed materials;
- Instruction using teaching, learning and working aids;
- Audiovisual lessons;
- Instruction with mass media
- Programmed instruction
- Computer-aided instruction

Distance education shares some characteristics with these various teaching processes although none of them qualifies to be called distance education (Peters 1994:98 - 101). The characteristics shared include:

- Use of personal correspondence
- Written tuition from tutors and written correction of assignments done
- Use of other literature like textbooks for additional support of the distance education courses
- Guidelines for the learners and provision of counselling
- Use of various media
- Individualised counselling and independence of learners.

In his comparison of distance education and the industrial process, Peters (1994, 1996) identifies major characteristics of an industrial process that are found in distance education as well. The major ones are rationalisation and mechanisation. Also, related to these two, he identifies division of labour, mass production, standardisation and centralisation as other important characteristics. The next sub sections will now discuss these major issues.

a) Rationalisation in Distance Education

Under rationalisation, the ultimate aim is to achieve high output while at the same time saving time and money. In the industrial process, this is achieved through division of labour, assembly lines, and mass production (Peters 1994:109). This Peters says is what is evident in distance education as well.

In conventional universities, a lecturer carries out all the teaching functions of any specific course. This he says can be compared to pre-industrial forms of study (Peters 1994:108). In distance education on the other hand, all these functions are split up and then carried out by different persons or by specialised sections implying division of labour and specialisation. Also, the courses and assignment scripts could be said to move in assembly lines. Peters (1994:113) says that division of labour in distance

education is vital and '*…is the main prerequisite for the advantages of this new form of teaching to become effective.'*

In addition to all these, as part of rationalisation, Peters says that preparatory work, planning and organisation are all very critical. This includes planning for the huge investments often required for the development of study materials. Therefore, since distance education processes involve many different persons and specialised sections, its success can only be achieved through rationalisation, through careful planning and organisation.

b) Mechanisation of Distance Education

With regard to mechanisation in distance education, Peters (1994:114) says '*distance study could be ascribed to the industrial levels as it cannot take place without the use of machines'.* Machines are constantly performing a number of distance education tasks and so distance education, like the industrial process, has been mechanised; and with advanced technology, some of these tasks have now been automated.

Division of labour and mechanisation of distance education have in turn led to mass production. In the industrial process, this can only take place where there is *'…a mass of consumers…'* In distance education, larger numbers of students can have access to education than is the case in conventional education; and through technology distance education provides study materials for these large numbers. To Peters (1994:116), the production of study materials represents mass production and he then concludes this by saying '…*distance teaching will one day equalize the opportunities to study…'*

In the end, division of labour, mechanisation and mass production all imply a standardisation of products. This is achieved in distance education when study materials are produced with a common format. Also unlike in lectures where lecturers may indulge in subjective comments or digressions, in distance education these are all eliminated and objectivity of content presentation is achieved and the study material standardised (Peters 1994:120). Having compared distance education to the industrial process, Peters (1994:125) then proceeds to define distance education as

> …a rationalized method - involving the division of labour - of providing knowledge which, as a result of applying the principles of industrial organization as well as the extensive use of technology, thus facilitating the reproduction of objective teaching activity in any numbers, allows a large number of students to participate in university study simultaneously, regardless of their place of residence and occupation.

c) Post industrialisation of Distance Education

Peters did not leave his theory at the industrial stage, since the current period of development could be counted as post-industrial. Peters (1996:39 - 58) has taken this theory forward. For as Amundsen (1996:62) says, '*Peters follows the same reasoning in describing how distance education must now change to match the changes in our industrial society as we enter the post industrial or post modern era'.*

To him, post industrialism is marked by three major changes that are taking place and these are increase in the service sector, emergence of new technology, and change in the decision-making structures so that decisions are no longer taken by an individual but by groups or teams of employees.
(Peters 1994:223, 1996:41-42).

These changes therefore imply that there is need for new knowledge and skills. However, in spite of these changes, distance education is still *'…basically an industrialized form of teaching…'* (Peters 1994:227, 1996:45). Nevertheless, in spite of these, Peters believes that there are some characteristics of post-industrial society that are evident in distance education as well. He highlights four of these:

- The learner is not tied down to the school and can study from wherever he/she is just as in post-industrial society the worker is no longer confined to a given place of work because of the flexibility Information Technology offers (Peters 1994:227, 1996:45).
- The learner takes responsibility for his/her learning and is given opportunity to develop *'…self-determination, self-direction and self-control…'* just as workers can determine how and when to work because the guiding principle is now meeting deadlines rather than presence at a specific place *(*Peters 1994:227, 1996:46).
- Social interactions are still important and are often provided through face-to-face sessions or through student self-help groups while workers achieve this through use of working groups (Peters 1994:227, 1996:46).
- Most distance education programmes today use electronic communications systems like radio, TV and computers just as in the post industrial setting it is no longer muscle power that is important but rather information (Peters 1994:228, 1996:46).

d) Effects of industrialization on Distance Education

With all these in mind, Peters (1994:229-235, 1996:47-53) then states that post industrialism is likely to affect distance education because of changes in work

requirements, change of learner characteristics and demands, and changes in technology. Some of these changes will be:

- *Demand for higher education* which is likely to increase especially for training, re-training and continuing education.
- *Students* will now enrol for different reasons and not necessarily so as to rise up in the social ladder.
- The learners *Objectives* for education will therefore be more of desiring to achieve self-realisation while for others this will be to improve their qualifications so as to get or keep certain jobs.
- The *structure* of education will have to change to cater for students who will want to study while working but with no undue stress. Distance education would therefore have to be integrated more into the daily work processes of its learners so as to remain relevant and appealing.
- Distance education institutions will need to provide courses that will be seen to be current and relevant. The *curricula* will therefore have to change to multi-disciplinary and multi-dimensional approach to course development.
- *Methods* used in distance education will also need to include group work through small groups, and involving frequent interaction between learners.
- As newer technologies emerge, distance education will continue to rely on *technology* and will need to continually integrate these new technologies.
- Institutions will no longer remain as custodians of knowledge. The democratisation of knowledge will mean changes in the functions of institutions. These institutions *'will become primarily service agencies whose main role it is to motivate, to inform, and to advise students expertly'* (Peters 1994:234, 1996:52).

The highlights of this comparison of distance education and the industrial process and then of distance education and the post-industrial society are therefore as follows;

- Distance education is certainly a product of industrialisation.
- However in the post-industrial era, distance education must change if it is to keep up with the emerging changes in learner needs.
- To manage these changes, new models of distance education will be necessary. Models that will promote group work, use of new technologies for acquisition of information and that will promote learner autonomy.

(Peters 1994:238-239, 1996:57)

e) Implications of Peters' Theory on Distance Education

Peters' theory of distance education as an industrial process raises a number of issues that are relevant to date. In a world where most governments and institutions are faced by the challenge of meeting costs of education amidst dwindling resources, it is imperative that both governments and institutions rationalise all the distance education processes so as to save time and money while maintaining quality. This is a tough balance to achieve but as Peters counsels, it is vital to carefully and deliberately prepare and plan for every distance education programme. Some programmes have in the past wound up because there was insufficient preparation and planning before the launching of the programmes.

However, since division of labour, mechanisation and mass production imply standardization of products, caution is necessary to avoid standardization of knowledge and loss of learner autonomy (Henri and Kaye 1993:28).

Lastly, Peters (1994:239, 1996:57) emphasises the need for relevant education using models that will appeal to the learners. This is something that distance education must fully grapple with for as he says, *'…slight and superficial alterations will certainly not do'.* Institutions therefore need to critically examine their systems and work towards transformation rather than make only superficial changes.

2.5.3 Michael Moore: The Theory of Transactional Distance

This theory was first put forward in 1972. According to Moore, separation between the teacher and the learner in distance education is more than just the distance separating them. To him, there is *'…a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of the instructor and those of the learner'* (Moore 1996:22). This is the space that Moore calls transactional distance. This distance affects both the teaching and learning and so efforts should be directed at crossing this distance so that effective teaching and learning can take place.

Moore puts forward three major variables that will affect the transactional distance (Moore 1986:11, 1996:23). These are instructional dialogue, programme structure and autonomy of the learner. These variables work in combination of each other thus together affecting transactional distance.

a) Instructional dialogue

This is the dialogue that takes place between the learner and the teacher and to Moore (1996:24) this is meant to lead to an understanding of the course. However, both the learner and the teacher should be partners in this dialogue. It is for this reason Moore (1996:24) says that the direction and extent of this dialogue will depend on the *'…educational philosophy of the individual or group responsible for the design of the course, by the personalities of teacher and learner…'*

The other major determinant is the medium of communication. Choice of media is therefore critical for it determines what kind and how much dialogue will take place between the teacher and the learner and ultimately, how far the transactional distance is reduced (Moore 1986:11, 1996:25). Some media will work better at reducing this distance than others. For example, *'…highly interactive electronic teleconference media, especially personal computers and audio conference media, permit a more intensive, more personal, more individual, more dynamic dialogue than can be achieved in using recorded medium'* (Moore 1996:25).

The number of students that a distance education tutor is handling and the frequency with which he communicates with his students can also affect dialogue. For example, if a tutor is expected to handle many students and there are no good opportunities for him to communicate with the students then very little dialogue will take place and the transactional distance will remain great.

b) Programme structure

The second major variable that Moore (1986:11, 1996:26) identifies is the programme structure. To him, a number of processes have to be structured into every programme. These are presentation of content; support of the learners' motivation; helping learners develop skills of analysis and criticism; advise and counsel for the learners; arranging for learners to practice, apply, test and evaluate what is learnt; and lastly arranging for learners to create knowledge. How each of these is structured into the programme will determine whether that programme will overall be highly structured or less structured and ultimately this determines the transactional distance that will exist between the learner and the teacher. The structure will determine the level of rigidity or flexibility in the programme.

A highly structured programme will for instance *'…set course starts and ends, have established due dates for assignments, use packaged course materials designed for*

*more than one set of students…' (*Amundsen 1996:63). With these set deadlines the learner will have much less flexibility, whereas a programme with less structure will *'allow course registration throughout the year, submission of assignments within a broad time period, and contract individually with students as to course composition'* (Amundsen 1996:63).

Moore (1996:27) also points out that a number of factors influence the structure of the programme and he identifies four of these:

- The nature of the communications media chosen
- Philosophy and character of the learners
- Philosophy and character of the teachers and
- Constraints that are imposed by the institution.

As with the case of dialogue, the nature of the media chosen for use will either impose structure on the programme or give the programme room for flexibility. For example,

> …a recorded television programme, …is highly structured, with every word, every activity of the instructor and every minute of time provided for, and every piece of content predetermined (Moore 1996:26).

A teleconference on the other hand will be more flexible allowing for students' input. So a programme run using teleconferencing will require much less structure than a programme presented using recorded television.
The philosophy and nature of the instructor and the nature of the institution also determine the extent to which a programme will or will not be structured. A teacher or institution that is unwilling to provide opportunity for dialogue with students will probably design a highly structured programme. In addition to this, the institutions' capacity to provide management and operational structures that give opportunity for dialogue and flexibility all determine the final structuring of the programme (Moore 1996:27).

c) Autonomy of the learner

This is the third major factor that Moore (1996: 29) identifies as key in determining the transactional distance between the teacher and the learner. So, to him a learner is autonomous when he/she has a great role in teaching/learning decisions. Therefore the greater the learner's role in the teaching/learning relationship the greater the transactional distance and the greater autonomy that learner will have. Moore (1996:32) however points out that some learners '…*preferred, or succeeded in less dialogic and*

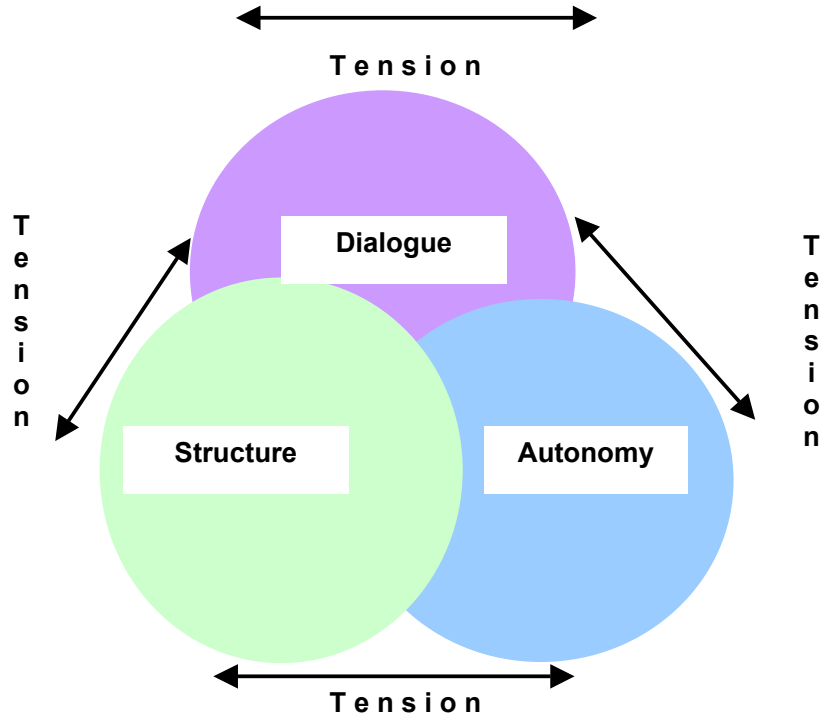
more structured programmes…' while others succeeded or preferred less structured programmes.

d) Implications of Moore's Theory on Distance Education

From all this, Moore certainly puts a lot of emphasis on the place of dialogue, programme structure and learner's autonomy on transactional distance and there are a number of lessons that distance educators can learn from this.

It is clear that there is tension as these three factors interplay and this is represented graphically as shown in figure 2.3.

Figure 2.3 Interrelationships of factors determining Transactional Distance



Achieving balance in the interrelationship between dialogue, programme structure and learner autonomy would perhaps be the ideal. That is having programmes that provide for dialogue, learner autonomy and at the same time, have some structure. For, lack or excessive structure, dialogue or learner autonomy could easily breed chaos. Institutions need not therefore seek to structure programmes, provide for dialogue, and learner autonomy for the sake of it. There must be careful planning and integration of each of this for maximum benefit to all.

For example, one of the advantages flaunted by distance educators is that it gives opportunity for flexible learning (Henri and Kaye 1993:28, Holmberg 1995a:50). However, some of the programmes that have been run before have been criticised for being too rigid with set deadlines for registration, handing in of assignments and examinations and with students progressing as cohorts. Henri and Kaye (1993:28) say, '*the autonomy that distance education claims to promote is therefore seriously compromised*'. Also, there have been some fears expressed that because of the highly structured study materials provided to the distance learners, only assimilation of facts is encouraged with very little of analytical and creative learning (Henri and Kaye 1993:27, Holmberg 1993:331). So if distance educators have to truly ensure flexibility and learner autonomy, then the structuring of programmes will need to be carefully considered.

In addition, if the choice of medium is likely to affect the dialogue that will take place between the teacher and the learner, then media must be chosen very carefully taking into consideration the expected level of dialogue. A specific medium should not be used for its own sake but for what it can bring to the teaching learning experience. Distance educators should also take into account other factors like the personality of the teacher and the administrative arrangements made to facilitate the teacher's work because all these are critical ultimately to how far the transactional distance is closed.

Moore's theory of transactional distance draws attention to important elements of the teaching/learning experience that must therefore be taken into account in the provision of distance education programmes.

Hence this theory is relevant to teacher education in Uganda. One of the teacher's responsibilities is to help the learner discover his own potential and develop analytical and creative skills. Teacher education provided by distance education should therefore be structured in such a way as to permit the student teachers develop these skills and prepare to help their own pupils develop the same skills. Teacher trainers should not run rigid and inflexible programmes that do not promote learner autonomy and yet expect the teacher to go to schools and offer flexible programmes that help the school children develop autonomy. The teacher trainees, as learners should experience flexibility and learner autonomy. Only then can they be expected to promote the same. This is an area worth exploring further in Uganda.

2.5.4 Borje Holmberg: Theory of Guided Didactic Conversation/Theory of Teaching-Learning Conversations

Holmberg, a former Professor of Methodology of Distance Education at the FernUniversität, put forward a theory of what he called Guided Didactic Conversation. However, he revises this title later and calls it the *'Theory of Teaching-Learning Conversations'* (Holmberg 2001:42). This theory was first reported in English in 1983 and its focus is three key areas, guided didactic conversation, learner autonomy and non-contiguous communication (Holmberg 1986, 1995a, 1995b, 2001).

a) Non-contiguous communication

Holmberg (1995b: 2) says communication is of two kinds:

1. One-way traffic in the form of pre-produced course materials sent from the supporting organization and involving students in interaction with texts; this can be described as simulated communication.
2. Two-way traffic, i.e. real communication between students and the supporting organisation

This communication is non-contiguous and need not therefore take place face-to-face but is instead mediated by different media especially print, recordings and telephone. However, modern media like telefax, and electronic mail can also be used today.

Closely related to non-contiguous communication is **didactic conversation** which is the other important element in distance education. Didactic conversation refers to the language used in the texts. This language is expected to be conversational.

b) Autonomy of the learner

To Holmberg, learning is principally an individual affair and the organisation can only be supportive. So, like Moore, he too places a lot of importance on the autonomy of the individual learner. All this is reflected in what he puts forward as the key requirements for distance education (Holmberg 1986:34). According to him these requirements are:

- Non-contiguous feedback to meet the need for human contact…
- Free pacing to allow the students to work when their circumstances permit independently of any plans of their university or school;
- Opportunities to sit for examinations when students are ready to do so;
- A credit-point organisation that allows and encourages them gradually to acquire competence in one subject or part of a subject after another.

As mentioned earlier, isolation is one of the problems that distance learners face and so Holmberg (1986:35) recommends that there must be feedback to the students so as to enrich learning and provide guidance to the learner. He however emphasises that this feedback need not be given in a face-to-face session but can instead be provided using media.

In his later publication Holmberg (2001:39), emphasises what he calls *'…personal relations and empathy between the students and those representing the supporting organisations.'* To him, these are vital in motivating students and influencing learning favourably. This interaction between students and the supporting organisation can be developed and promoted through media.

On pacing of students, Holmberg (2001:21) gives two approaches to this. The first one is what he calls *'…an extra-paradigmatic innovation…'* In this type of teaching/learning, students' pacing is not imposed on students for, as he says, *'pacing imposed on students creates difficult problems'.* In this regard, he recommends that each student should be permitted to progress at his or her own pace; and consequently, compulsory deadlines for assignments are unacceptable because, as he says, these create difficulties and may promote dropping out. Using the same argument, Holmberg also says that students should be allowed to sit examinations whenever they choose to. To cope with this, he suggests the support organisation arrange for examinations to take place *'two or three times per term in each subject or part of a subject for which marks are to be given'* (Holmberg 1986:35).

Although what Holmberg suggests here would be the ideal, a highly flexible programme would be most difficult to manage. Allowing for instance 500 students enrolled on a single course to submit assignments whenever they are ready would be tantamount to having 500 different deadlines! A challenge no academic or administrative staff would want to deal with. Perhaps this is why the second option he proposes seems more attractive to many distance education institutions.

The second approach is one he calls *…innovation within an accepted paradigm…'* This is a much more structured approach than the first one and is characterised by classes/cohorts, fixed starting times, fixed schedules for assignments, and fixed duration of the course (Holmberg 2001:21). Most dual mode institutions follow this approach. For example, the Makerere University External Degree Programme is an example of a programme that runs on this basis.

Holmberg however advises that distance education should adopt the credit point system that would allow students to concentrate on single subjects while at the same time accumulating credits for the award. This would be another way of making this structured approach more flexible.

c) Principles and characteristics of Distance Education

Having identified the basic requirements for distance education to take place, Holmberg (1986:108-111, 1995b:47, 2001:38-41) puts forward five salient principles and characteristics of distance education and these are:

1. Learning is an individual affair and student support should therefore only facilitate learning. As a result, distance education is much more suitable for adult learners who often already have a high degree of independence.
2. Teaching should as a result facilitate learning. Methods and media that the support organisation chooses to use should be those that will enhance this function of teaching.
3. Course materials developed for the distance learner should be presented in an interactive manner. The learner should be addressed personally and should be given opportunity to interact with the material through the self-checking exercises.
4. Empathy is critical as a pre-condition for effective presentation of learning matter and for provision of learner support. This gives opportunity for a two-way communication between the learner and the support organisation. Various media can be used to mediate this since communication is core in distance education.
5. *'Organised distance education requires an administrative framework'* (Holmberg 1986:110) *a*nd this to him implies that an institution can be public, private, independent or part of another institution. However in each case the institution would only act as a support organisation whose major role would be to take decisions. On this matter, Holmberg agrees with Peters that '…*division of labour, rationalisation and automation…'* are vital particularly if students are many (Peters 1994:109).

d) Teaching as facilitating learning

According to Holmberg's theory, the central concept is that teaching is meant to facilitate learning and this teaching is through the study materials and support the student gets. It is therefore for this reason Holmberg is concerned about the teacher/organisation's view of what constitutes learning. The policies and procedures adopted will be influenced by this view.

Holmberg (1986:123) then states his theory as:

> Distance teaching will support student motivation, promote learning pleasure and effectiveness if offered in a way felt to make the study relevant to the individual learner and his/her needs, creating feelings of rapport between the learner and the distance-teaching institution (its tutors, counselors etc.), facilitating access to course content, engaging the learner in activities, discussions and decisions and generally catering for helpful real and simulated communication to and from the learner.

Holmberg's theory does raise a number of pertinent issues that are important in distance education. The next sub section therefore examines the implications of this theory on distance education.

e) Implications of Holmberg's theory on Distance Education

One of the major contributions of Holmberg's theory has been his concept of didactic conversation or teaching/learning conversations as he later calls it. It is therefore essential that providers of distance education establish ways and means of optimising the didactic conversation when designing study materials and when choosing media to use.

The issue of learner autonomy is also critical so programmes should be designed in such a way as to offer the learner opportunity to take charge of his/her learning experience. The learners must be given some degree of independence. However, the issue of maximum flexibility in pacing is still an elusive one for many of the distance education programmes that have been run.

Holmberg's view of the providing institution as a support organisation is also important in distance education. It implies that institutions need to plan for support structures that will enable it to actually provide support to the distance learners.

2.5.5 Desmond Keegan: Theory of the Reintegration of Teaching and Learning Acts

Keegan (1996:113 – 134) put forward this theory believing that distance education theory forms part of general education theory. In putting forward this theory, Keegan confesses that he is influenced by the views of Wedemeyer, and by Garrison and Shale. It is also clear from his theory that in some respects [for example on the issue of separation of teaching and learning acts], he agrees with the views of Moore.

a) Major elements of Distance Education

In his theory, Keegan attempts to define distance education and he does this by identifying the major elements of distance education. To him, the major elements are:

- Students study at home and at other related locations but nevertheless away from the institution and teacher (Keegan 1996:118)
- Students and teachers are separated in a quasi-permanent basis. This to him is when the *'…teacher and the learner are totally or substantially separated and that this may be for the length of the learning process…'* (Keegan 1996:119)
- Study is institutionalised. In other words, there is an institution that is involved in planning and management of the teaching and learning processes (Keegan 1996:118)
- Technology is used *'…to unite teacher and learner and carry the content of the course'* (Keegan 1996:120). This is a major component because to him, without communication, there can be no distance education and this communication is possible through the use of technical media.
- 'Two way communication is provided *'… so that a student may benefit from or even initiate dialogue'* (Keegan 1996:120)
- Quasi-permanent absence of a learning group. The learner does not have to study in a group but can be taught as an individual.

b) Keegan's definition of Distance Education

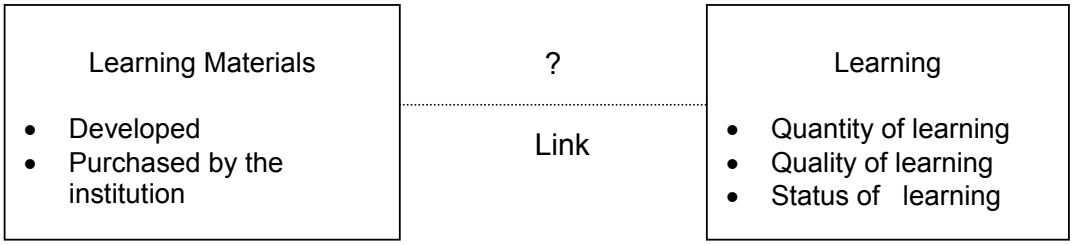
Having identified these major components of distance education, Keegan (1996:120) then proceeds to define distance education as:

> A type of education characterized by the quasi-permanent separation of teacher and learner throughout the length of the learning process; the influence of an educational organization, both in planning and preparation of learning materials and in the provision of student support services; the use of technical media - print, audio, video, computer - to unite teacher and learner and carry the content of the course; the provision of a two-way communication so that a student may benefit from or even initiate dialogue; the quasi permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals not in groups, with possibility of occasional meetings for both didactic and socialization purposes.

c) Reintegration of teaching/learning Acts

Keegan (1996:130) considers '*linking of learning materials to student learning'* as the crux of the matter since in distance education, students and teachers are separated. He then presents this diagrammatically as shown in figure 2.4.

Figure 2.4: Linking learning materials to learning



Source: Keegan 1996:130

Establishing a link between the learners and the teachers is what Keegan calls the reintegration of the teaching/learning acts. This is important because reducing the gap between the learners and the teacher enriches the teaching/learning acts. This to him can be best achieved through:

- Two-way communication between the distance learners and the distance teacher through technical media.
- Study materials that are developed in such a way as to give the learner opportunity to interact with the materials. To achieve this, the materials should, to Keegan (1996:131,) have interpersonal communication characteristics which he identifies as:
  - easily readable style,
  - careful structuring of content,
  - self-testing questions within the material,
  - well stated instructional objectives, and
  - simulations of classroom, lecture or tutorial situations.
- Reintegration of the course development and student support. These he says are the two major sub-systems of distance education and the two should be linked up.

Keegan is concerned about reintegration because to him, that is the only way distance education can reduce on the number of dropouts in the programmes. Also, a higher quality of education can be achieved thus enhancing the status of the organising institution as well (Amundsen 1996:67, Keegan 1996:132).

d) Implications of Keegan's theory on Distance Education

Like all the other theorists discussed, Keegan once again draws our attention to the element of separation of the teacher and the learner. So distance educators really need to take this element into account because it is the one consistent element arising in all the theories discussed here. And as Keegan reminds us, it is only when efforts are made to bring the two together that dropouts can be reduced, quality education achieved

and the status of the institution improved. These are the three 'sticky' points in distance education. Distance education programmes have been accused of producing many dropouts (Keegan and Rumble 1982:228, Perraton 2000:193). Efforts must be made to remedy this and if reintegration of teaching/learning acts is going to help in this, then it should be ensured.

Also, distance education has sometimes been called a second rate alternative of education because it does not offer high quality education (Keegan and Rumble1982:232). This needs to be addressed if distance education is to receive acclaim and general acceptance by all its stakeholders. Keegan's views cause us to focus on these issues.

2.5.6 John R. Verduin, Jr. and Thomas A. Clark: The Three Dimensional Theory of Distance Education

These two put forward this theory in 1991, building on Moore's theory. And like Moore, their theory was heavily influenced by theory of Adult Education. In this Three Dimensional Theory therefore, the focus on adult education is retained (Amundsen 1996:68) but also general practice in distance education is reflected. Verduin and Clark (1991:124) say,

> We believe that using many of Moore's concepts to develop a theory that better fits distance education in practice, while tying it to adult and conventional education overall, presents an evolution not a rejection, of the concepts he advanced.

They retain the adult education focus because to them *'distance education can be characterised as a form of adult education'* (Verduin and Clark 1991:4-5). They then continue to identify what to them the adult education characteristics found in distance education are.

a) Adult Education characteristics found in Distance Education

The characteristics identified are:

- Distance education programmes' dealings with time and place are often appealing to adult learners who prefer to study either in the evenings or during weekends.
- Units or departments that have traditionally run adult education programmes run a number of distance education programmes. For example continuing education or extension services units.
- A lot of literature that has been written on distance education programmes is about programmes whose clients are adults.

- *'Successful study at a distance requires certain traits that are more typical of adult than pre-adult learners'* (Verduin and Clark 1991:5). For example, studying as a distance learner requires self-motivation and independence both of which are found in adult learners.

b) Verduin and Clark's definition of Distance Education

In terms of a definition of distance education, Verduin and Clark adopt a definition that retains the central concept in the earlier definition given by Garrison and Shale (1987). To them, distance education might therefore be *'any formal approach to learning in which a majority of the instruction occurs while educator and learner are at a distance from one another'* (Verduin and Clark 1991:8). This definition retains Keegan's concept of separation of the teacher and the learner (Amundsen 1996:68).

This theory is called a 'Three Dimensional Theory of Distance Education' because Verduin and Clark identify three major dimensions that to them are critical in understanding distance education and these are:

- dialogue/support
- structure/specialized competence
- general competence/self-directness

c) Dimensions of Distance Education

Dialogue/support

The first dimension they identify is that of *Dialogue/support.* This begins with Moore's concept of dialogue (Amundsen 1996:68, Moore 1996:24, Verduin and Clark 1991:124,), but later, they introduce the concept of support; for to them, the *'basic reason for dialogue is to provide support of one kind or another to the distance learner'* (Verduin and Clark 1991:124). Their major argument for emphasizing support for learners is that a more independent student will not require a lot of emotional support whereas a dependent student will on the other hand *'use dialogue to receive emotional support'* (Verduin and Clark 1991:124). In other words, such a dependent student will require more than content information and study directions. For such a student to be retained on the distance education programme, he/she will need other forms of support.

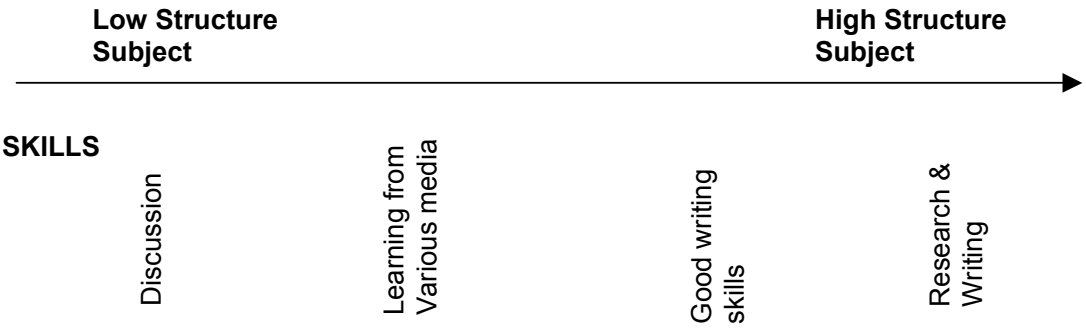
Structure/specialized competence

The second dimension that Verduin and Clark identify is *Structure/Specialized competence.* Once again, they start developing this concept by adapting from Moore his concept of structure of the programme and then include the concept of specialized

competence (Verduin and Clark 1991:125). According to Amundsen (1996:68), for the first time in the development of theory on distance education, the issue of content of the subject becomes an important factor. This is because Verduin and Clark believe that different subjects require different levels of specialized competence for the learner to effectively study the said subject. So to them, structure and specialized competence are inseparable (Verduin and Clark 1991:125). The more highly structured the subject, the more specialized competence will be required for the learner to study that subject.

They contend that for a learner to be a self-directed learner, he/she needs certain specific skills. They then present these skills in a hierarchy. A low structured subject to them would require low-level discussion skills so as to engage in learner discourse. On the other hand, a highly structured subject where prerequisite knowledge would be required before proceeding to another level, more specialized skills of research and writing would be necessary (Verduin and Clark 1991:126). This can be graphically represented in figure 2.5.

Figure 2.5: Hierarchy of skills required for different subject structures



General competence/self-directedness

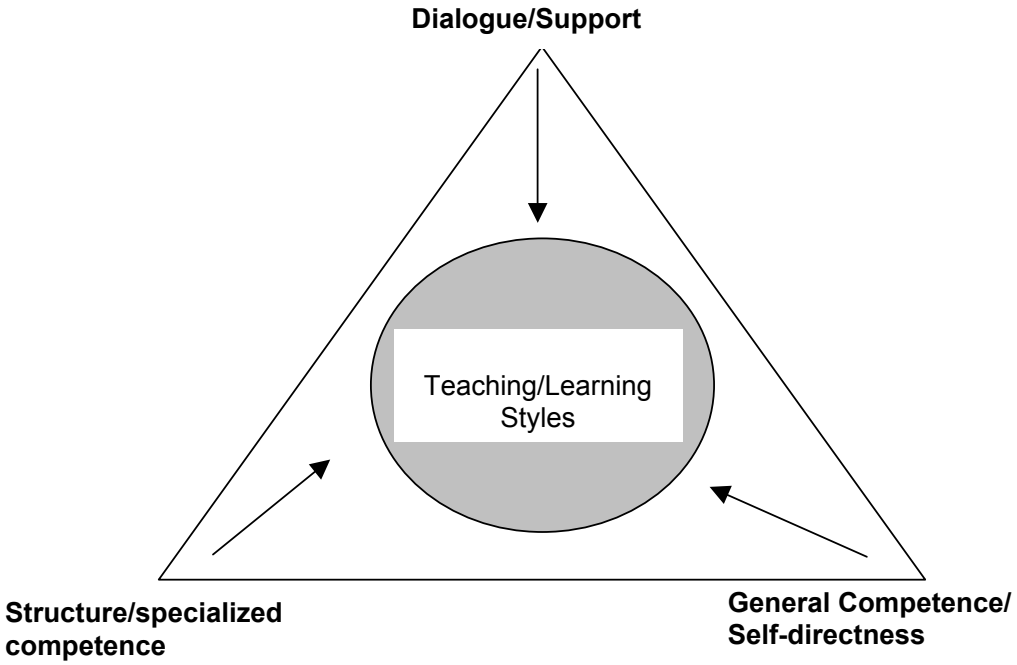
The last dimension that Verduin and Clark put forward as vital is *general competence/self-directedness.* In this, they believe that self-directedness is not *'inherently good or bad'* (Verduin and Clark 1991:127). However, to them, it is wrong to assume that subjects will promote autonomy but rather it should be recognised that a learner will need specialised competence and this is dependent on the structure of the subject. General competence alone is not sufficient. Therefore to determine the levels of self-directedness or general competence a learner requires to study a specific subject, it is necessary to do the following:

- *'determine whether the student is competent in that field at that level,'*
- *'estimate the student's general competence'*

- *'…see if appropriate structure and dialogue have been afforded…'* (Verduin and Clark 1991:127)

From this theory it is evident that Verduin and Clark put a lot of importance on understanding the learner, particularly the adult learner, with all his/her potentials. In addition, the three dimensions they put forward are closely related and so, often a course will have some content that is highly structured and requires specialised competence and other content that is of low structure but requiring specialised competence. Distance Educators have a lot to learn from this theory. This interplay of factors can be represented diagrammatically as shown in figure 2.6.

Figure 2.6: Three dimensions to teaching/Learning



d) Implications of the Three Dimensional Theory on Distance Education

Verduin and Clark state that distance education is a form of adult education partly because most of the programmes that have been run have been for adult learners. Also, since adult learners often have great motivation and are often self-directed, distance educators should take this into consideration when planning programmes or courses. Courses run should exploit these strengths in the learners to the benefit of the learners.

Also, like Moore, Verduin and Clark invite distance educators to critically examine the structure of the subject, the level of support, and the level of competence required for a learner to be able to effectively participate in the programme. These three are interrelated and the style of teaching adopted will depend on the teacher's attitude with regard to these three. Likewise, the style of learning adopted will depend on whether the learner is one to work best with little or with much dialogue, low or high structure and his/her level of competence with regard to the course to be studied.

2.5.7 Derek Rowntree: Self-Instruction

Derek Rowntree was actively involved in the development of study materials at the Open University UK, and as a result put forward guidelines for teachers, lecturers, trainers and instructors wishing to produce effective self-instructional materials. According to him, self-instruction has been known by different names including:

- distance education
- packaged learning
- open learning
- flexistudy
- independent/individualized learning
- home study
- computer based training/computer aided instruction

Rowntree (1986:9)

It is however difficult to accept his view that self-instruction is synonymous with all the terminologies he gives here, (section 2.2 discusses some of these), but nevertheless each of these forms of learning do utilise self-instruction. Also, as he points out, all the learners involved in self-study have one thing in common, '*…they rely very heavily on **specially prepared teaching materials'**. That is the teaching will have been largely pre-planned, pre-recorded, and pre-packaged'* (Rowntree 1986:11). The basic principles Rowntree puts forward are discussed in the next sub-sections.

a) Characteristics of Self-Instruction

To distinguish self-instruction from what he calls conventional instruction, Rowntree identifies a number of features and these are:

- Self-Instruction depends on materials that have been especially produced for use by a specific group of learners and with specific objectives in mind (Rowntree 1986:11).
- Learners involved in self-instruction will *'do most, if not all, their learning from the materials alone'.*
- The materials designed should carry all the functions of a teacher. In other words, the study material should guide, motivate, question, intrigue and provoke the learner.

- Learners may learn from each other; however, since this may not always be easy to implement, *'self-instruction materials may need to compensate for lack of contact with other learners as well as with teachers'.*
- The learners are encouraged, and sometimes required to make *'occasional contact with a tutor'.* This contact can be by telephone, through assignment tutoring or through seminars and tutorials.

(Rowntree 1986:11 –13)

b) Major features of self-instructional materials

Having identified the key characteristics of self-instruction, Rowntree then puts down some features of self-instruction materials that would ensure that the materials perform the teaching function. Some of the major features are:

The self-instruction materials may be produced by either course teams or by individual course writers (Rowntree 1986:19 –23).

- Already existing courses can also be adapted whether in whole or only in part as long as in so doing the needs of the learners and objectives of the course are met (Rowntree 1986:30 -32).
- Maintenance of the course should be planned for right from beginning. To him, maintenance of the course would among other things include: tutoring, producing new assessment materials, maintaining course records, dealing with problems that arise during the course, evaluating and improving the course (Rowntree 1986:32 - 33).
- The course material should not be overloaded because this can lead to stress for the students (Rowntree 1986:58).
- The content chosen should be carefully sequenced according to what is most likely to appeal to students, and what will promote learning (Rowntree 1986:66).
- Although in self-instruction, the main media is print, other media can be integrated. The media chosen should, according to Rowntree (1986:74), be performing the following functions:
    - Catching the learners' interest.
    - Reminding them of earlier learning
    - Stimulating new learning
    - Explaining and provoking thought
    - Getting learners to respond actively
    - Giving them speedy feedback to their responses
    - Encouraging them to practise and review
    - Helping learners assess their own progress

- Learner activities included should cause learners *'… to work with the subject-matter - rather than merely reading about it'* (Rowntree 1986:83).
- Self-instruction material should be highly readable. In other words, the material should be written in a *'conversational style'* and in a plain manner so as to ensure that the learners can easily enjoy studying it (Rowntree 1986:207).
- The study material developed should also include tasks that invite learners to carry out practical work. While additional practical work can be carried out during face to face sessions, at the learner's place of work, using experimental kits and/or using pictures or videos to demonstrate the practical work the learners are expected to carry out and/or learn from (Rowntree 1986:237).

All the features mentioned here should have the effect of promoting active learning (Rowntree 1986:119).

c) Implications of self-instruction on Distance Education

Rowntree's outline of the major features of self-instruction presupposes that the learners and the teachers (course writers/developers) are separated, for as he says, *'some forms of self-instruction cater for learners who are learning "at a distance'* (Rowntree 1986:10). This is in agreement with other theorists discussed earlier (in sub-sections 2.5.1 – 2.5.6) who identify distance as a major characteristic of distance education. Also, written study materials form the core of many distance education programmes and so the principles that Rowntree puts forward as critical in ensuring active learning are relevant to all programmes. These same principles can also be stretched beyond print materials. For, regardless of the medium used or technology used for instruction, learning should still be an active process. Therefore the study materials should be developed in a manner that will encourage the learner to actively participate in the learning process.

This whole section has focused on some theories of distance education and for each one of them, the implication on distance education has been discussed. Section 2.6 draws on these theories for the conceptualisation of distance education and table 2.2 summarises each of the theories.

Table 2.2: Some Distance Education theories, key issues raised and their implication to Teacher Education

Theorist & Theory	Major issues	Implications for DE Teacher Education
Otto Peters **Distance Education as An Industrialized form of Teaching**	**Rationalisation in DE** • Division of labour for DE activities • Like in industry, courses and assignment scripts move in 'assembly lines'. • DE aims at mass access to education and mass production of course materials • Standardisation of products **Mechanisation of DE** • DE cannot take place without the use of technology. **Post Industrialism has huge implications on DE** • Has affected the demand; type of student enrolling and their objectives for doing so; curricula of courses offered; methods of teaching/learning; type of technologies being used, and functions of the providing institutions.	• DE implies involving many different persons and specialised sections • Careful preplanning and continuous planning of programmes • Since there is likelihood of standardisation of knowledge, need care so as to avoid causing complete loss of student autonomy • Need transformation of institutions and programmes to cope with changes in society.
Michael Moore **Theory of Transactional Distance**	**Instructional dialogue: dialogue that takes place between the learner and the teacher** • This dialogue affected by the philosophy of the institution and the teacher • Also affected by medium of communication chosen • Number of students a tutor handles also affects dialogue. **Programme structure** • All major processes of a programme and how they are structured or organised will determine the transactional distance that will exist between the institution and the learners • Highly structured programme implies less flexibility for the learner • Less structure implies more flexibility for the learners **Autonomy of the learner** • To what extent does the learner have control over the teaching/learning contract	• Strive for balance between dialogue, programme structure & learner's autonomy • Programme should be designed carefully so as to enable learners to develop analytical and creative skills • Careful choice of the media • Development of didactical sound programmes

Borje Holmberg **Theory of Guided Didactic Conversation/Theory of Teaching Learning Conversations**	**Non-contiguous communication**	• Institutions should be support organisation – facilitating not directing learning • Materials developed should be interactive • Media chosen should promote communication between the learner and the teacher/institution • Programme organisation should promote learner autonomy
	• This communication does not have to take place face to face. • Communication is mediated by media	
	Autonomy of the learner	
	• Learning is an individual affair. Institution should only be supportive	
	• Students must be given feedback. This does not have to be face to face	
	• Free pacing of the students helps them work whenever they can	
	Principles and characteristics of DE	
	• Learning is an individual affair. Institution should only be supportive	
	• Teaching should only facilitate learning	
	• Course materials should be interactive	
	• Empathy is critical for provision of learner support	
	• Organised DE requires an administrative framework	
	Teaching as Facilitating Learning	
	• Teaching in DE is through study materials and student support	
	• Learning should be made relevant	
Desmond Keegan **Theory of the Reintegration of Teaching and Learning Acts**	**Major elements of DE**	• There must be deliberate efforts at bridging the gap that separates the teachers and the learners • This will help reduce dropouts, improve quality of education and status of the institution • Study materials developed should be interactive • Media should be carefully chosen so as to ensure two-way communication
	• Student studies away from the institution and the teacher	
	• Students are separated from the teacher either totally or substantially	
	• Study is institutionalised.	
	• Technical media is used to link up the teacher & the learner	
	• Two-way communication provided	
	• Learner does not have to study in a group	
	Reintegration of teaching/learning act	
	• DE is characterised by separation of teaching/learning acts	

	• Crux of the matter should therefore be the reintegration of these acts through: - two-way communication - readable and interactive materials - linking course development and student support	
John R. Verduin Jr. & Thomas A. Clark **The Three Dimensional Theory of Distance Education**	**DE as a form of adult education**	• DE providers should seek to understand their learners. • Programmes should be planned according to the learners' interests and abilities • Programmes should also exploit the learners' motivation and strengths • Critically examine the structure of the subject, level of support and the level of competence the learner needs so as to cope.
	• DE appealing to adult learners	
	• Many DE programmes run by units/departments of Adult Education	
	• A lot of DE clients are adults	
	• Adults cope better with DE	
	Dimensions of DE	
	• Dialogue is a means of providing support to the learners. A dependant learner will require more support than the independent learner.	
	• Different subjects require different levels of competence to effectively study. A highly structured course requires more specialised skills	
	• General competence alone is not sufficient, specialised skills will be necessary. Not all subjects will promote learner autonomy.	
Derek Rowntree **Self-Instruction**	**Characteristics of self-instruction**	• Since most DE Teacher Education programmes rely on print materials, these materials should be carefully developed to ensure active learning. • Even where other media is used, learning should still be active
	• Depends on especially prepared study materials	
	• Learners depend almost entirely on study materials	
	• Study materials should carry all the functions of a teacher	
	• Learners do not always get opportunity to learn from each other	
	• Learners may have some contact with their tutor	
	• Study materials should promote active learning	

2.6 DISTANCE EDUCATION CONCEPTUALIZED

2.6.1 Introduction

A number of theories have been put forward and analysis of all these helps in the understanding of distance education. From the discussion of the different designations given to distance education (section 2.2), the role of technology in distance education (section 2.4) and from the discussion of the theories discussed in section 2.5, a number of characteristics of distance education can now be identified. Also a number of lessons can be drawn, particularly for Teacher Education in Uganda.

2.6.2 Learner and teacher separated

All the theories discussed in this study agree that in distance education the teacher and learner are separated (Amundsen 1996:61-79, Holmberg 1995b:2, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8). This is one of the major characteristics and this distance can be:

- in terms of physical distance and time (Keegan 1996:118-119)
- the separation of the teaching and learning acts (Keegan 1996:130)
- psychological and communications space (Moore 1996:22)

This separation is both a challenge and an opportunity. It is a challenge, because then the distance education institutions must plan for effective and efficient ways of bridging this gap. It is, however, an opportunity because it opens avenues for creativity so as to bridge this gap. Also the different dimensions of this separation should all be taken into consideration.

Distance education teacher educators in Uganda therefore need to examine the different dimensions of this separation with regard to their teacher trainees. The design of the programmes should therefore be in such a way that all this distance is bridged, for only then can quality be achieved and dropouts reduced (Keegan 1996:132).

2.6.3 Technology important for bridging distance

Since distance is a challenge and opportunity to distance education, all the theories discussed agree that this distance must be bridged. They also agree that technology or communications media is critical for this purpose. In their views, this can be achieved through:

- Mechanisation of the distance education processes (Peters 1994:114).

- Use of technology to facilitate dialogue between the learner and the teacher and amongst the learners (Moore 1996:25). Verduin and Clark (1991:124) believe that this enables institutions to give learners support.
- Study materials that give the learner opportunity to interact with the materials through the manner in which they are presented and through the kind of activities the study materials invite the learners to engage in (Amundsen 1996:67, Holmberg 1995b: 2, Keegan 1996:131,Rowntree 1986:207).

All these bring out a major characteristic of distance education, which is, the need for deliberate attempts to bridge the gap between the teacher and the learner and between learners through the use of technology.

It should however be pointed out that the choice of the technology depends on a number of factors and also that the different technologies can facilitate this dialogue in different ways. Choice should therefore be according to the type of dialogue desired. Technology should not be chosen for the sake of it but for what it will help achieve. Hence, the choice of technology to be used in teacher education programmes in Uganda needs careful thought taking into consideration access to the technology, the likely costs, and benefits of each technology (Bates 1982:278).

2.6.4 Distance Education promotes learner autonomy

The learner is very important in distance education and so the needs of the learner need to be catered for. The learners have the possibility of choosing when and where to learn. In other words, the learners can manage their own learning (Moore 1996:29, Peters 1994:227, 1996:46, Verduin and Clark 1991:4-5). So, study materials being developed and used in many distance education programmes are designed in such a manner as to encourage learners to be autonomous.

The role of the institutions is to help learners become independent learners. Distance education institutions should therefore design and manage programmes in such a way as to promote this learner autonomy.

This question of autonomy is rather difficult to achieve because as Henri and Kaye (1993:28) point out, a number of programmes that have been run in the past do not actually promote this learner autonomy because of rigid programmes. Nevertheless, this is something that ought to be taken seriously since with post-industrialism, as Peters (1994:239, 1996: 57) says, society needs and work demands will change and so the new

models of distance education '*will have to rely on self-directing and self-controlling - that is, on students becoming autonomous*'.

Teachers carry out a lot of independent work in schools and so their training ought to help them acquire and develop knowledge and skills that will enable them do so. The challenge therefore for distance education teacher educators in Uganda is to find ways of taking advantage of this.

2.6.5 Careful planning and organisation

Distance education involves a lot of activities that demand high levels of planning and organisation. Peters (1994:118) says this is a result of division of labour. Bringing together all the different persons and processes therefore requires this planning and organisation for as he adds,

> The importance of organization in distance teaching can be assessed by the fact that it is often difficult to distinguish between the operational (technical) organization of distance study and the methodical organization of the actual academic contents.

Some of the many activities that each distance education institution has to perform include production of study materials; provision of student support; managing programmes, students and staff; and assessment and evaluation of programmes and students. Each institution therefore ought to have systems that will ensure that these activities are efficiently and effectively carried out.

For these activities, according to Keegan (1996:120), imply institutional involvement and as he says, distance education involves '*… the influence of an educational organization, both in the planning and preparation of learning materials and in the provision of student services*'.

Therefore, to avoid problems arising from poor planning and organisation, all distance education programmes in Uganda need to ensure that each of these major functions are well planned for and well organised. The Makerere External Degree Programme, for example, has had some difficulties with production of its study materials and provision of student support because this was not well planned for initially (Aguti 1996:84, 88).

2.7 DISTANCE EDUCATION CONTEXTUALIZED

Distance Education is growing in Uganda and this growth and development could be taken as an indicator of the potential that it has in the country. This section will therefore be concerned with a brief outline of this growth. Since its beginnings in Uganda in 1967, a number of programmes have been run, although this growth and development was halted in the Amin years as a result of the general political, social and economic degeneration of the time (Aguti 2000:256). This was a period of near total break down of all social, economic and political services. However, today Uganda can boast of a variety of programmes but nonetheless, these programmes are faced by a number of challenges. Addressing these challenges could become opportunities for further growth although failure to address the challenges could impede this growth and development.

2.7.1 Educational need of Uganda and the potential of Distance Education

Uganda is a developing country with only a small proportion of its population receiving tertiary education. For example, in 1998 the Gross Enrolment Ratio (GER) for all levels of education was only 34% compared to 57%, which is the average of developing countries, and 83% for the industrial countries (UNDP 1998). This situation could not have changed drastically since 1998 so, this indicates a huge need for tertiary education among other needs. With distance education there is potential to improve the tertiary enrolment, and to improve the quality of education, train the untrained teachers, train teachers of Science, English and Mathematics, and provide education in many other needed fields.

a) Improving quality of education

There has been an enormous increase in the number of secondary schools in the country but unfortunately, according to Kasozi ([s.a]:4) there has been no corresponding improvement in the quality of education. Yet improved primary and secondary education form the basis of further tertiary and lifelong education. Thus it is imperative that teachers are well trained initially and given further training on an on-going basis. Unfortunately, there is particularly inadequate further training of teachers and the quality of initial training has also been questioned (Odaet 1985:45). There is therefore need to deal with this and one way could be retraining of teachers so as to equip them to teach better. In addition to this, it should be possible to utilise distance education methodologies to enrich the teaching/learning experiences thus improving the quality of education.

b) Train the untrained and under-trained Teachers

One of the strategies for the improvement of education in Uganda is to train the untrained and under-trained teachers in the country. According to the Republic of Uganda (2002:119), the secondary school system has a total of 37,227 teachers. However, 3,512 (9.43%) of these are untrained and 244 are under trained. See table 3.4 for details of the numbers of teachers. The primary school system has also faced the problem of untrained and under-trained teachers. For example, by 1992, 80% of the primary school teachers in Mubende and Kiboga districts were untrained (Robinson and Murphy 1996:15); while NITEP was also launched with the purpose of training 3,000 untrained teachers in Northern Uganda (Wrightson 1998:55). In addition to the untrained and under trained teachers in the secondary school system, many of the Diploma teachers are teaching classes they are not qualified to teach (Republic of Uganda, Ministry of Education and Sports May 2001:34).

So, there is need to train the untrained and under-trained teachers, although Uganda also still needs more teachers. The Commissioner for Secondary Schools Yusuf Nsubuga, said recently, *'the Government is short of 710,000 secondary school teachers'* (The New Vision 5th May 2003). Although the break down of the subjects for which these teachers are needed is not available, past experience shows that most of the teachers needed are for Science, English Language and Mathematics.

Distance education has been used in other countries and in Uganda to provide continuous professional development opportunities to teachers and to train untrained or under trained teachers; and it can still be used to do so.

c) Meet increased demand for education

School education in Uganda has been growing with the resultant effect of growth in the demand for particularly higher education. For example, in 2000, the total enrolment in tertiary institutions was 75,462 but by 2005 this is expected to rise to 117,813 and to 232,433 in 2010 (Kasozi [s.a]:14). Unfortunately, existing facilities will not cope with such numbers, the institutions are not expanding at the same rate and neither are new ones being built at a rate that will help deal with such a massive demand (Kasozi [s.a]:14). There is therefore likely to be a huge gap between the numbers demanding tertiary education and the number of places actually available in the institutions and distance education can be used to bridge this gap.

d) Train professionals in other fields

Although this study focuses on INSET for secondary school, distance education has potential to meet the need for other professional as well. Kasozi ([s.a]:15) identifies the need to develop *'…the science, the technology and research capacity...'* in the country. With the potential that ICTs provide in distance education, it should be possible to provide education that will help develop these capacities.

In addition, globalisation has given rise to a new breed of professionals, those doing *'back-office-jobs'.* This is where companies in the developed countries contract professionals to carry out some tasks in their own countries. For example, '*India manages web sites and other information networks for many companies in the USA, Germany and Japan'* (Kasozi [s.a]:34). The question that arises then is, can Uganda chip into this market and what needs to be done for this to happen? Maybe distance education can be used to retool some professionals and prepare them to compete for such jobs.

It is therefore evident that the need for particularly tertiary education in Uganda is enormous and this is an opportunity that distance education can use to widen its coverage and to constructively contribute to the development of the country. To illustrate this potential, the next section traces the history of distance education in Uganda.

2.7.2 History of Distance Education Uganda (1967 – 1989)

Distance education in Uganda has its beginnings in the programme for the up grading of the 'vernacular' teachers to Grade II level. The Ministry of Education and UNICEF financed this programme while the newly formed Makerere University Centre for Continuing Education (CCE) run it. It began in August 1967 with 1,000 teachers. In December 1970, 946 sat the examinations set by the National Institute of Education. Of these, 877 passed the examinations, 8 missed the examination, 63 completed the course although they did not reach the required standard and 52 did not complete the course (Kaye, June 1971:2). This was an extremely high completion rate and on the basis of this, the Ministry of Education run other programmes.

Makerere University, through its Centre for Continuing Education (CCE) also ran an Intermediate Certificate course and the subjects taught in this course were Economics, Government and Communication. These courses appeared in The People newspaper as an educational supplement and the Milton Obote Foundation funded this. At the end of the training programme, the students were awarded the Makerere Intermediate

Certificate. In 1969 the CCE launched another course; this time for adults wishing to sit for the East African Certificate of Education Examinations. The subjects studied included English, History, Commerce, Mathematics, Principles of Accounts and Luganda (Kaye, October 1970:1-2).

In the same year 1969, after consulting the Ministry of Public Service and Cabinet affairs, CCE introduced various subjects for the Uganda Public Service Clerical Examination. This was with the view of helping the Ministry of Public Service and Cabinet Affairs and various other organisations train clerical officers. About 500 students were enrolled for this course (Kaye, October 1970:2).

In spite of those early beginnings with correspondence courses, distance education is still not well established in Uganda.

2.7.3 Distance Education activities in Uganda (1990 – to date)

The late 1980s reopened debate and interest in distance education. The Ministry of Education (1989:122), for instance recommended distance education as one strategy that should be adopted so as to democratise education in the country. Since then, Non-Governmental Organisations (NGOs) and individuals have initiated a number of programmes. Also, government is keen to implement some of the recommendations of the White Paper, and is presently engaged in a number of pilot projects especially in teacher education. One example of this growing interest in distance education is the Task Force that was set up in November 1999 to look into the possibilities of establishing an Open University of Uganda. This Task Force submitted its report to the Ministry of Education and Sports so an Open University of Uganda may be established soon.

Some of these programmes will be briefly described here but in Chapter Three, Teacher Education programmes will then be discussed in more detail.

a) Mubende Integrated Teacher Education Project (MITEP)

This is a project that was launched in Mubende and Kiboga districts because up to 80% of the districts' primary school teachers were untrained (Robinson and Murphy 1996:15). The community in these districts, therefore, initiated Mubende Integrated Teacher Education Project so as to meet the need to train this large percentage of untrained teachers. This project was launched in January 1992 with funds from Overseas

Development Agency (ODA) and Action Aid United Kingdom (AAUK); a development charity organisation based in the U.K. The main aims of the project were to '*...improve the quality of primary education in Mubende District'* and to assess *'...the cost effectiveness of MITEP... in order to assess its worth as a model for replication throughout Uganda'* (Robinson and Murphy 1996:15).

To train the teachers, the course was run by distance education using print based materials supplemented through student support activities. 900 untrained and under-trained teachers were recruited but only 306 completed and passed the Grade III Teachers' Certificate Examinations.

b) The Northern Integrated Teacher Education Project (NITEP)

MITEP was followed by the launching of a similar project, NITEP, by the Ministry of Education as part of a national programme to rehabilitate the North and North Eastern parts of Uganda that were ravaged by war and civil strife.

NITEP aimed to train up to 3,000 untrained primary school teachers. However, by the time the project wound up in 1998, a total of 2,051 teachers had been trained and had passed the Grade III Teachers' Certificate Examinations (Wrightson 1998:55).

c) Rakai Integrated Teacher Education Project (RITEP)

This was another local initiative, this time in Rakai District; it also dealt with the problem of untrained teachers in primary schools. RITEP received its financial support from the Lutheran World Federation, and trained up to 200 untrained teachers in the district. To do this, RITEP used some of the MITEP modules although the project developed some of its own materials (Odurkene, 1995 as quoted by Aguti 2000:259).

d) T*eacher Development and Management System (TDMS)*

This is one of the major strategies for the implementation of Primary Education Reform in the country. Through this, government hopes to train more primary school teachers and school managers, on-the-job, using distance education. In so doing, government hopes to achieve its aims of improving the quality and quantity of teachers and school managers (Odaet and Higwira, 1994, Makau April 2001:4). Also, TDMS hopes to improve the quality of teaching and learning materials, and to involve the community in

school support and management. Some of the NITEP modules were used, but TDMS eventually developed a lot of its own materials.

Today, TDMS is spreading country wide to become a national programme. It wound up its activities as a project having trained a number of teachers and headteachers.

e) Diploma in Primary Education

The External Diploma in Primary Education was launched in April 1999 at the then Institute of Teacher Education (ITEK), now Kyambogo University. This programme was launched so as to upgrade Grade III teachers to Diploma level using distance education. The general aims of the programme are:

- Increase intake in Primary Education up-grading courses to meet urgent national needs of the teachers in Primary school.
- Provide opportunity to eligible and interested teachers who can not pursue full-time courses in the colleges/institutions or Universities
- Develop a more flexible mode of education that caters for a variety of needs, changing circumstances and learning requirements of the teachers.
- To develop manpower for Universal Primary Education (Kyambogo University Records 2002).

Students enrolling for this Diploma are expected to take a minimum of three years and a maximum of five years to complete the course. The study package in the programme includes print based study modules especially developed in a distance education mode, compulsory residential sessions and student group meetings.

f) Health Manpower Development Centre: Distance Teaching Unit

The Health Manpower Development Centre was set up in 1982 as the Ministry of Health's Centre for Continuing Education, but in 1987 it changed to its present name. The Centre's main task is to provide continuing education to all those who are involved in health and health-related work. The Centre set up a Distance Teaching Unit in 1985. To run its initial programmes, the unit borrowed and adapted materials from Kenya. Today, the unit has produced a number of its own courses and materials and has also set up a

number of branches in the North, East, and West of the country. The Centre is receiving its financial support from the Canadian International Development Agency (CIDA), and has had a cumulative enrolment of more than 5,500 since it was launched (Distance Teaching Unit 1998). To run these programmes, the Centre uses study materials, radio programmes and face-to-face sessions.

This programme has proved quite popular with the health workers although the completion rate is only 11%. This is mainly because the Ministry of Health does not recognize the certificate issued (Bbuye 1999). Those completing the courses do not get any promotion or increment in salary as a result of completing the training. To many of these medical staff, there is therefore no motivation to complete the courses.

g) World Links for Development [WorLD]

This is a global collaborative learning programme sponsored by the World Bank Institute. The goals of this programme are:

- Improve and expand educational opportunities and horizons for secondary school teachers and students around the world.
- Narrow the information gap between students in developing and industrialized countries.
- Build bridges among the leaders of tomorrow.

This programme therefore links schools in developing countries with partner schools in Australia, Canada, Europe, Japan and the United States. A total of 14 countries in Africa and Latin America are involved in this network (Kakinda 2001).

Uganda was the first pilot country for the WorLD. It was started in July 1996 with only three schools. Now there are a total of 32 schools (15 of these are rural schools) participating with over 30,000 students and 1920 teachers (Kakinda 2001). WorLD helps deliver teaching aids for schools, educational resources and references and access to knowledge and information through access to the Internet. To ensure students and teachers benefit fully from services available, WorLD Uganda has run a number of seminars and workshops for both students and teachers. It should however be noted that, although WorLD Uganda has grown from the initial 3 schools to now 32, it is still being run as a project.

h) The African Virtual University Project (AVU)

This also started as a pilot project initiated by the World Bank. Unlike most virtual universities, the AVU is a satellite based distance education programme transmitting video based courses (Baranshamaje 1996, AVU 2003). It is currently operational in 31 campuses in 17 countries in Africa. In Uganda, three institutions initially participated and these are Makerere University, Uganda Martyrs University, Nkozi and Uganda Polytechnic Kyambogo.

The mission of the AVU is to use the power of information technology to increase access to educational resources in Sub-Saharan Africa. It is particularly committed to increasing enrolment levels for scientists, technicians, engineers and business managers.

The AVU launched its programmes in October 1997 and has since then offered basic computer literacy courses, foundation courses in the sciences, remedial instruction and seminars. It had hoped to launch fully-fledged degree courses in Computer Science, Computer Engineering and Electrical Engineering. The curricula for these were developed by teams of academics including many African lecturers from universities in Africa (five of them from Makerere University). However, the focus has now changed and only the Computer Science degree is initially being offered.

The study package for the AVU programmes includes.

- Video based lessons. At the launch of the project, most of the courses originated from universities in Canada, USA and Europe. However, plans are underway to make these courses computer based and eventually to have them originating from Africa.
- Live interactive sessions (two-way audio and one-way video) and tutorial support by local academics
- Assignments and tests, and practicals at sites where applicable.

(Aguti 2000:261)

The AVU also has access to a wide selection of library resources including 1,000 journals on-line most of them full text. These can be accessed at any of the AVU campuses. Besides, the AVU also now has a website that incorporates e-mail, chat rooms, bulletin boards, file sharing and transfer. To date, 45,000 free e-mail accounts

have been given out. Also, since launching the programmes, the AVU has had 23,000 students register for various courses and 2,500 professionals participate in the different seminars and workshops so far run (AVU 2003).

The AVU has now become a non-profit making organisation with its headquarters in Nairobi.

i) External Degree Programme of Makerere University

Makerere University was established in 1922 as a technical school. In 1949 it became a University College linked to University of London; then in 1963 it became a constituent college of the University of East Africa. Makerere finally achieved its full university status in 1970. It has since grown and today has 9 faculties and 11 schools/faculties (Ministry of Public Service, 1994).

Since 1991, Makerere University has run the External Degree Programme (EDP) while continuing with internal programmes, both day and evening. The EDP started with only 245 registered students but today has nearly 6,500 students registered on the Bachelor of Commerce, Bachelor of Education and Bachelor of Science. The three programmes being run under this scheme. The EDP shall be discussed in greater detail in Chapter 3.

j) Other DE Programmes

Apart from those briefly outlined above, various ministries and NGOs have in the past run radio and television broadcasts. The Ministry of Education has, since 1963, supplemented classroom teaching for schools and colleges. Today the Ministry is working at reviving this service and strengthening the unit. This is particularly important since other distance education programmes in the country would benefit from a strengthened broadcasting unit.

The Ministry of Information and Broadcasting has also run broadcasts for various target groups; and is seeking to strengthen and improve its activities. This is particularly crucial since the White Paper sees this Ministry as central in the development of distance education in the country. For instance, the White Paper states:

> Distance Education through radio, television, and correspondence courses should be strengthened. For this purpose, the Ministry of Information and Broadcasting should set up separate radio and television channels for educational programmes (Republic of Uganda, 1992:184).

2.7.4 Management and organisation of Distance Education In Uganda

The DE programmes that have so far been discussed in this section have each had different management and organisational structures. But two major strands emerge and these are the dual mode Institutions and projects

a) Dual mode institutions

Dual mode institutions are those that run both internal and external programmes. From the discussions earlier, these include Makerere University with its External Degree Programme and Kyambogo University with its Diploma in Primary Education and perhaps later the Grade III Teacher's Certificate and the Headteachers' Management Training Course. The latter two being programmes that were initially run under TDMS but are being Institutionalised under Kyambogo University.

In both Universities, the programmes are being run under the Departments of Distance Education. In each case, this Department is a service Department collaborating with other University Departments. The Departments of Distance Education are responsible for the management and administration of the programme while the collaborating faculties are responsible for the teaching functions. In Makerere University for instance, the Department of Distance Education is responsible for:

- Keeping and maintaining student records
- Receiving and dispatching assignments for marking and eventual distribution of marked assignments to students.
- In consultation with the teaching faculties identify and train tutors, writers, editors and reviewers of the study materials.
- Production, publication, revision and distribution of study materials developed

However, although this arrangement seems quite plain and clear, it has created some problems.

First, the demarcation between administrative and academic functions is not that obvious. The case of the (B.Com External) best illustrates this. There has been no clear agreement between the Department of Distance Education and Makerere University Business School (MUBS) over what constitutes administrative and what constitutes academic functions. For example, is receiving and keeping assignment records an

administrative or academic function?

Also, distance education requires specialized skills and management which is not often found in Universities running internal programmes. Introducing DE therefore brings in new demands creating tensions and pressures. Once again, the External Degree Programme (EDP) of Makerere University best illustrates this tension.

As a fee-paying programme, the EDP contributes a certain percentage of its income to the Central Administration of the University. However, the contributions made are calculated on the basis of whether a programme is a day programme or an evening programme. No special arrangement was made for the EDP taking into its uniqueness. As a result, the Department has been dissatisfied with the way this is being handled whilst the Central Administration seems baffled by the Department's position. Clearly this is lack of clear understanding and appreciation of the uniqueness of DE programmes.

b) Projects

As already indicated, most of the programmes discussed in this chapter have been run as projects with external funding. This is beneficial particularly for the launching of the programmes since funding is attracted. However, sustainability of these programmes often becomes a challenge. For example, in TDMS for phases I – III the bulk of its funding was from external sources (Makau April 2001:21). The question being asked now is, how can government sustain TDMS programmes with the inadequate contributions it was making?

The AVU is another example. In all the three institutions in Uganda that participated in the project phase, the level of activities has dropped because of, among other things, lack of adequate funding. It is perhaps therefore wise while initiating any distance education projects to plan for the sustainability of the programmes.

2.7.5 Major features of Distance Education programmes in Uganda

Looking at all these programmes mentioned here, there are a number of common characteristics that emerge. Some of these are:

- Largely government funded or donor funded with the exception of Makerere University EDP and the Kyambogo University Diploma in Primary Education. In other words, the private sector is not yet heavily involved and yet if these programmes are

to integrate other media, and to find alternative funding, the private sector must be brought in.

- Most of them are for retraining and upgrading especially teachers. This has gone a long way particularly to meet the demand for teachers, however, with the current expansion of the school system particularly the primary school, and the changes in the job market requirements, DE must get involved in other fields as well.
- Print is still the main medium but some programmes have integrated Information Communication Technologies (ICTs). There are a number of challenges to this but ICTs have certainly generated a lot of interest.
- A few like the AVU and World Links are using other technologies but these are project based and largely donor funded. These programmes have demonstrated that it is possible to utilize ICTs in the provision of education in Africa. The rest of the other programmes unfortunately have done little to integrate ICTs. This is an area of need.
- All the programmes use face-to-face sessions as one of the major components of the learning package.

These characteristics are a pointer to some of the challenges that distance education programmes face in Uganda.

2.7.6 Challenges

It is evident that by all accounts, distance education has a great potential in Uganda and yet it has not developed as fast in spite of having come on the scene as early as 1967. Also, in spite of the high interest in ICTs and the enormous potential this offers, these technologies have also not been well exploited. It would therefore be critical to identify the bottlenecks to development and growth of distance education and the integration of ICTs in it. There cannot be one answer to this question. In fact it may be a combination of factors some of which are:

- Lack of faith in the ability of distance education to do anything else other than upgrade teachers.
- Sustainability.
- Poor social service and technological infrastructure in the country.
- The need for comprehensive planning for the implementation of distance education programmes.

This is discussed further in Chapter 3 Section 3.6.6.

2.8 SUMMARY

This chapter focused on conceptualising and contextualising distance education. To do so, the different designations that have been used were discussed and from this discussion, it is evident that the choice of which designation to use may be due to regional, geographical or institutional preferences. The chapter has also traced the growth of distance education over the years which has been largely because of its potential to meet the increased demand for education, increase access to education, cope with the changing nature of the university student, meet urgent need for teachers, be a more cost efficient alternative and exploit the advantages provided by technology. However, in spite of this growth, distance education has been criticised because of high drop out rates associated with it, its failure sometimes to promote deeper learning and the acquisition of critical thing skills, and its elitist nature.

In addition, this chapter specifically discussed the role pf ICTs in distance education, the advantages and disadvantages of various ICTs; and some theories underpinning distance education. The implications of these theories on teacher education were then discussed.

Lastly the chapter concerned itself with the contextualization of distance education in Uganda. Demand for education in Uganda is growing and this is not adequately met. Neither places available nor funds spent on education are sufficient. A number of initiatives are therefore currently being undertaken to try to meet this growing demand. Some of these initiatives involve the use of distance education that has great potential in the country. In addition, some of these like the African Virtual University, World Links for Development, and Acacia integrate ICTs. Other distance education programmes also like the Teacher Development Management System (TDMS), Kyambogo University Diploma in Primary Education Programme and the Makerere University External Degree Programme use print as the major medium with hardly any integration of ICTs in their programmes. None of these initiatives are large scale, but there is clear recognition by both the government and the public that distance education can contribute greatly in meeting the growing needs of education in the country.

CHAPTER THREE
CRITIQUE OF IN-SERVICE TEACHER EDUCATION IN UGANDA

A student is not above his teacher, but everyone who is fully trained will be like his teacher. Luke 6:40 (NIV)

3.1 INTRODUCTION

This chapter will be critiquing In-Service Teacher Education (INSET) provided in Uganda through distance education since 1990. However, to fully understand this, teacher education and teacher training in general will be discussed. The different approaches used to provide teacher education will also be discussed. Finally INSET as currently provided in Uganda will be examined. This is expected to provide insight into the current INSET by distance education practices and to highlight strengths and weaknesses.

The acronym INSET will be used throughout this study because, although it refers to In-Service Teacher Education and Training, it will be used here whenever In-Service Teacher Education is being discussed. Also, all the literature surveyed on In-Service Teacher Education use this same acronym (INSET). Section 3.1.1 discusses this further.

3.1.1 Distinction between Teacher Training and Teacher Education

Most training programmes for teachers are referred to as teacher training programmes as opposed to teacher education programmes and this has a lot to do with the history of the training of teachers. Initially teaching skills were *'…mastered mainly through practical experience, without any specific training'* (Korthagen 2001:1). This was meant to enable trainees acquire mainly teaching skills. Later, there were efforts to make the teacher much more knowledgeable. In other words acquisition of teaching skills alone was no longer sufficient; it was now vital for a teacher to be more rounded (Robinson and Latchem 2003a:10). Cognitive skills and a broader knowledge of other issues were now also considered important. Dove (1986:242) then says of teacher education:

> …teacher education has been differentiated in terms of an emphasis on cognitive development and specialist understanding of the subjects teachers teach… an understanding of the social, economic and professional aspects of education… and knowledge of teachers' roles and responsibilities.

However, in spite of this distinction most literature uses teacher training and teacher education interchangeably and sometimes concurrently for, as Dove (1986:242) points out, *'…the fact that Teacher Education and Teacher Training are terms which can be*

interchanged with ease for many purposes reflects the lack of a hard distinction between them. Bagwandeen and Louw (1993:13) hold the same view when they say that the distinction between Teacher Education and Teacher Training is '*…not always clear*'.

In Uganda, the Education Policy Review Commission in their report (Ministry of Education 1989:97-109) and the Government White Paper (Republic of Uganda 1992:136-150) do not make a distinction between teacher education and teacher training although in both, the term teacher education is used in all the headings and sub headings. However, the Teacher Education Department ([s.a]: 6) emphasises the fact that teacher training is limited to classroom skills and techniques. The Department instead prefers that teachers be helped to become *'… the best kind of teacher…'* through teacher development. In other words, for a more rounded teacher, teacher education is vital because it implies going beyond skills and techniques to include '… *personal growth and the development of attitudes and insights'.* To the Department,

> Teacher Training and teacher development, therefore, should be seen as two complementary components of a fully rounded Teacher Education. (Teacher Education Department [s.a]: 6)

Although the term **teacher education** with its emphasis on broader skills, knowledge and attitudes is preferred, in this study, the more commonly used acronym INSET will be applied.

3.2 NEED FOR TEACHER EDUCATION

3.2.1 Introduction

As already shown in the previous section, teacher education is concerned with helping teachers acquire attitudes, knowledge and skills that they need so as to carry out their duties and responsibilities as teachers. In this section therefore, the various needs that particularly in-service teacher education meets will be discussed. However, since these needs depend on the role of the teacher in the teaching and learning process, the next sub section explores this role.

3.2.2 Role of the teacher in teaching and learning

Teachers are central in the school system. Perraton *et al.* (2002:7) argue that, *'…teachers are vital. Unless we can get more teachers, and better teachers, we will not reach the target of making quality education available to all by 2015'.* Quality education is certainly impossible to achieve without teachers. So as more and more children join

schools, more teachers will be needed. The number of children needing education will continue to grow because the world population is continuing to grow. According to the UN (1999:5), *'… there are still three times as many children (30%) as older persons (10%)* in the world. The population in developing countries in particular is growing fastest. In 1995 the population was 4.3 billion but by 2015, this is expected to rise to nearly 5.9 billion - an increase of nearly 37% (UNDP: 1998:177).

So because of this tremendous growth of the population, implying a demand for education, more and better teachers will be need. Teachers are vital because they have a big role to play. The next few paragraphs will briefly discuss the role of the teacher in teaching and learning.

The traditional role of the teacher has been that of relaying knowledge and information and of communicating to learners (Boulton-Lewis et al. 2001:1, Coetzer 2001:75-76, Dreyer 1994:72, Mcloughlin and Oliver 1999:33). In the traditional classroom, the teacher did '*…all the thinking, planning, evaluating and problem solving …everything the learners must do is mapped out for them; everything is under the teacher's control'.* On the other hand, the students in such classrooms were expected to have *'…passive roles and undertake activities that are pre-planned*, *organised and controlled by teachers…'* (Mcloughlin and Oliver 1999:33).

However, the teacher's role is today seen as one of nurturing children and of promoting critical thinking (Dreyer 1994:72, Fraser and Lombard 2002:92). This therefore goes beyond relaying information or 'pumping knowledge into empty brains'. It involves caring, facilitating and supporting the children in their learning. The teacher in this relationship cannot be seen as the expert or 'sage on stage' but rather as a 'guide on the side'. The teacher should therefore not view himself/herself as the know it all. Instead, teaching and learning are viewed as reciprocal activities (Boulton-Lewis et al. 2001:1, Coetzer 2001:75-76, Dreyer 1994:72, Fraser and Lombard 2002:92, Mcloughlin and Oliver 1999:33). Table 3.1 reproduced from (Coetzer 2001:75-76) summarises the differences in the two approaches to teaching and learning. Although in this Coetzer was specifically talking about changes taking place in South Africa, the table clearly summarises the issues discussed in the above paragraphs.

This paradigm shift in teaching and learning requires change in teaching methods and therefore in teacher education. For according to Iredale (1996:9) in any education

system, *'…the lynch-pin is a well planned, coordinated, sensitive system of teacher education.* Therefore teacher education cannot continue to propound methods that are teacher-centred and expect teachers to go out into the schools and carry out collaborative activities that give learners independence and opportunity to act as responsible learners. There have to be changes in teacher education as well, because ultimately, a teacher's view of his/her role will determine how the teaching and learning are carried out.

Table 3.1: Differences Between the Traditional and New Approach to Teaching and Learning

Traditional education approach	**New education approach**
• Passive learners	• Active learners
• Exam-driven	• Learners are assessed on an on-going basis
• Rote learning	• Critical thinking, reasoning, reflection and action
• Syllabus is content-based and broken down in subjects.	• Integration of knowledge; learning is relevant and connected to real-life situations
• Textbook/worksheet-bound and teacher centred	• Learner-centred; teacher is facilitator and constantly uses group and teamwork to consolidate the new approach
• Syllabus is seen as rigid and non-negotiable	• Learning programmes are seen as guides that allow teachers to be innovative and creative
• Teachers are responsible for learning; motivation depends on teacher's personality	• Learners take responsibility for their learning and are motivated by constant feedback and affirmation of their sense of self-worth
• Emphasis is on what the teacher hopes to achieve	• Emphasis is on outcomes – what the learner becomes and understand
• Content placed in rigid time-frames	• Flexible time-frames allow learners to work at their own pace
• Curriculum development process not open to public comment	• Comment and input from the wider community is encouraged

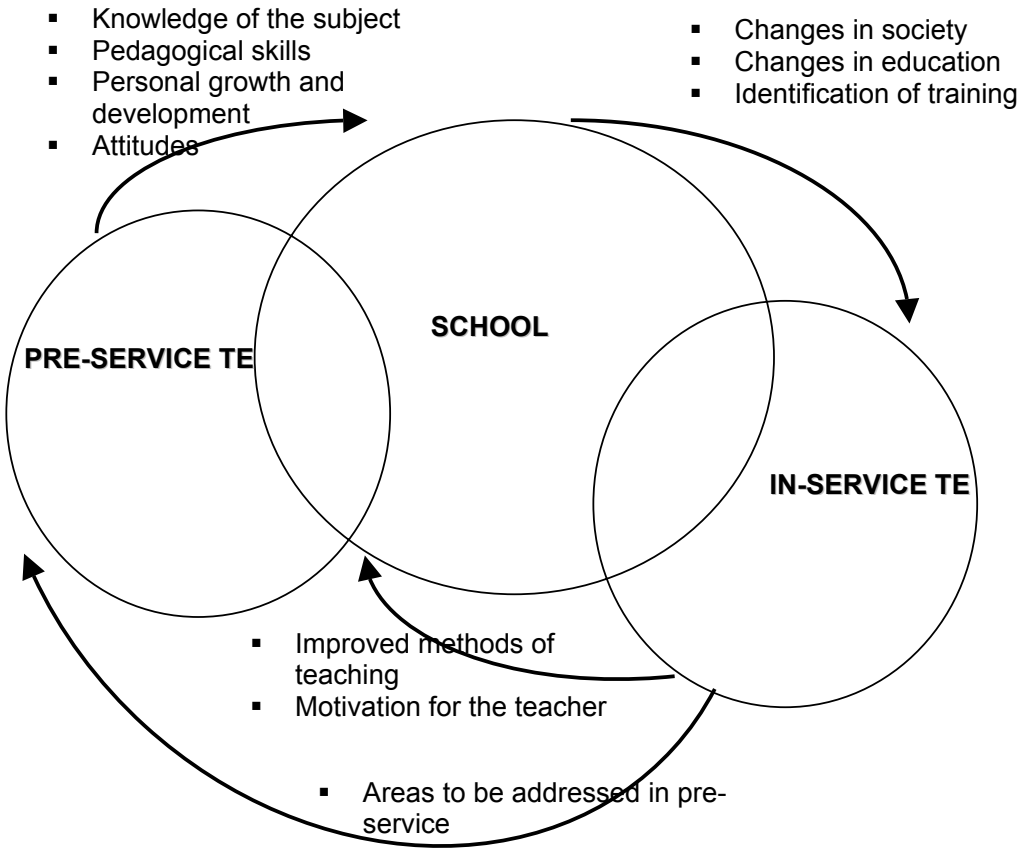
Teacher education programmes offered using distance education will also hence require the use of more collaborative methods that will help teacher trainees acquire knowledge and skills necessary for collaborative teaching and learning in schools.

3.3 APPROACHES TO TEACHER EDUCATION

3.3.1 Introduction

As already mentioned in the previous section, teacher education is concerned with helping teachers acquire attitudes, knowledge and skills that they need so as to carry out their duties and responsibilities as teachers. To help teachers do this, teacher education has by and large been provided either as before recruitment (Pre-Service) or while in the service (In-Service). Nevertheless, many authors believe that pre-service and in-service are part of the teacher education continuum which consists of 'initial training →induction and finally →in-service'. They should all therefore be carefully planned for and with their interrelatedness in mind. Figure 3.1 represents this relationship.

Figure 3.1: Relationship between Pre-Service Teacher Education, the School and In-Service Teacher Education



Also, since society, which the school serves, is always in a state of flux, education is also likely to change, so INSET should be continuous. A teacher should therefore continue to receive in-service training as long as the said teacher continues to teach or serve

schools. This way the education system will continue to address its challenges and improve.

Although this study is focusing on In-Service Education, for purposes of clarity, it is necessary to first look at both pre-service and In-service.

3.3.2 Pre-Service

Pre-service teacher education has been and continues to be offered in different ways. The programmes comprise as Dove (1986:212) says, *academic and professional components, taken consecutively, as in post graduate education courses, or concurrently, as in education degrees…'* These courses therefore include among others:

- Certificate courses
- 2-3 year undergraduate Diploma courses offered after 12 – 13 years of schooling. These are common in developing countries and graduates of these programmes teach in lower secondary and in primary schools. For example, Uganda through its National Teachers Colleges offers a 2 year Diploma course for secondary school teachers
- Graduate and post graduate diplomas or certificates

A number of writers have, however, expressed a lot of dissatisfaction with pre-service teacher education. It has been said that it can only give a teacher knowledge and skills to start the career but cannot equip the teacher for life. Also, it has been said that teacher education does not relate theory and practice and in so doing fails the teachers. (Aspland and Brown 1993:7, Iredale 1996:15, Korthagen et al. 2001:10, Odaet 1985:45). It is for this reason therefore that growing emphasis is being put on In-service Teacher Education.

3.3.3 In-Service (INSET)

Whereas pre-service teacher education exclusively deals with initial teacher education, in many developing countries, in-service education deals with continuing education/professional development and initial teacher education as well. Also, like pre-service teacher education, different courses are offered using different strategies. These have also ranged from certificate courses to post-graduate courses. By its very nature, INSET also provides non-credited courses. INSET can therefore be provided through seminars, workshops, conferences, short courses, and long courses (Bagwandeen and Louw 1993:108-117, Robinson and Latchem 2003b:31).

This study is focusing on the formal award-bearing INSET for secondary school teachers in Uganda and will therefore not explore in depth all the various non-formal/non-credit INSET programmes being run in the country. But before doing so, reasons for INSET will first be explored.

a) Changes in society

Society is constantly changing and so do its needs. Schools reflect society and meet society needs and so teachers serving in these schools also need to change so as to meet these changing needs. For as Aspland and Brown (1993:6) state, '*there is little doubt of an accelerating pace of change in the needs of teachers, of schools and of the society they serve'.* It therefore becomes imperative that to enable the teachers keep up with these changes, re-training or orientation as need dictates may be necessary.

b) Ensuring professional growth

Most of the teachers that join the teaching profession eventually serve for many years (Aspland and Brown 1993:18). Initial teacher education and induction are only '*…the initial stages of a continuing process of professional education…'* and therefore not sufficient. For with time, the knowledge and skills that the teacher acquired during this period is likely to become either obsolete or old fashioned (Bagwandeen and Louw 1993:10, Iredale 1996:13).

To keep such teachers abreast of changes in the curricula, teachers' roles, methods and approaches of teaching and changes in technology requires that they be constantly updated and this can be done through In-service programmes. Curricula changes are particularly common as needs change and so reorientation or upgrading of skills is always essential (Bagwandeen and Louw 1993:1, Dove 1986:224, Iredale 1996:15). Related to this is what Garden (1998:226) calls professional development. As he says,

> …clearly teachers of any subject are better fitted for their work if they have continuing professional development in the form of opportunities for refresher studies and organized interaction with fellow teachers.

This will help the teacher sharpen his/her knowledge and skills and ensure growing mastery and professionalism.

Besides all this, teachers sometimes need to gain promotion but which can only be gained if they received additional training. In-Service is therefore very instrumental in ensuring professional growth of teachers and for opening avenues for them to receive

additional training so as to gain promotion (Bagwandeen and Louw 1993:117, Hickcox and Musella 1992:159).

c) Relating theory and practice

Teacher training and education has sometimes been accused of being ineffective. Korthagen et al. (2001:xi) for instance say '*many research studies demonstrate the failure of teacher education to fundamentally influence teachers and improve education'.* According to them, students, teachers, parents, politicians, and teacher educators themselves are unhappy with teacher education.

One of the reasons put forward for this failure is the lack of relationship between theory and practice (Aspland and Brown 1993:7, Iredale 1996:15, Odaet 1985:45). In other words, what is taught in teacher training institutions is sometimes not relevant to the realities in the field. Dove (1986:223) comments on some topics covered in teacher training and education saying that institutions continue to offer some courses even when the courses are no longer useful. Where this has occurred, In-service education can be used to address the deficiencies and any other academic or professional deficiencies.

d) Need for more trained and better quality teachers

Many developing countries particularly continue to suffer lack of trained teachers and a number of untrained teachers are employed to cover the gap. Perraton *et al.* (2002:7) point out that Sub-Saharan Africa in particular needs more trained teachers because it still employs untrained and under trained teachers. This is in the midst of decreasing life expectancy as a result of AIDS, yet pupil numbers continue to grow. In relation to this, a number of these countries have also used In-service teacher education to train the untrained teachers already in the school system and to improve the quality of the under trained teachers (Rahman Al-Ahmed 1988:82).

From all this, it can therefore be concluded that INSET can be used so as to:

- Train the untrained teachers that are already in the school system
- Help teachers acquire additional qualifications
- Reorient teachers for new roles in the school system
- Deal with changes in the school curricula.

Perraton *et al.* (2002:8) while quoting Greenland (1983) provide a table with a catalogue of the purposes of INSET programmes. This is now reproduced here as Table 3.2

Table 3.2: Purposes of In-service Teacher Education programmes

Purposes	***Subcategories***
Initial training of unqualified teachers	programmes leading to certification short induction courses
Upgrading of teachers who already have a qualification	for subqualified teachers for qualified teachers
Preparing teachers for new roles	as headteachers to work in teachers' colleges
Training related to content of the school curriculum	for planned curriculum change refresher courses

It is evident here therefore that quality teachers are key in quality education and so the emphasis on INSET remains vital in all education systems. See figure 3.2 for this relationship. Bagwandeen (1999:62), rightly too, concludes that although objectives for providing INSET may differ,

> …the common thread is that all are concerned with the upgrading and improvement of the qualifications of educators so that they become more competent in the classroom.

With this in mind, the teacher education curriculum will now be discussed.

3.4 TEACHER EDUCATION CURRICULUM

3.4.1 Introduction

Before discussing teacher education in Uganda, it is important to examine the teacher education curriculum. According to various literature on this, the teacher education curriculum is generally based on four components and these are:

- Subject matter studies
- Foundations of education studies also sometimes called educational studies
- Professional courses and
- The practicum, also often referred to as teaching practice or school practice (Ben-Peretz 1994:5991, Furlong *et al.* 2000:24, Odaet 1985:21, Perraton et al. 2002:8)

This curriculum is often for both pre-service and in-service formal programmes. Short courses, seminars and workshops may not cover all these components but may instead focus on identified areas of need.

The amount of time given to each of these four components and the structuring of the whole curriculum is likely to vary depending on the institution, its philosophy, and the level for which the teacher is being trained. Nevertheless, in all cases it is believed the major aims are:

> … improving the general educational background of the trainee teachers; increasing their knowledge and understanding of the subjects they are to teach; pedagogy and understanding of children and learning; and the development of practical skills and competencies (Perraton *et al.* 2002:8).

These courses can be taught either concurrently with the subject content or consecutively after the subject content; and according to Robinson and Latchem (2003a:11) and according to other studies they refer to (European Commission 2000:41, OECD 2001), both strategies are being used. The balance between the subject content, foundation courses, professional courses and the practicum also varies from institution to institution and as the European Commission (2000:41) as quoted by Robinson and Latchem (2003a:13), says

> The study notes that the balance of time given to the teaching of subject knowledge and to pedagogy and practical training was a matter of concern to all countries in the study.

This is the same view that Moon and Robinson (2003:74) re-emphasise when they say,

> The relationship among these three elements of teacher training (academic subject knowledge, professional studies or pedagogy and practice) is complex. Clearly, subject-matter knowledge, pedagogical knowledge and practice interact strongly… The relative emphasis given to them depends on the nature of the training programme and the entry levels and experience of the teacher trainees.

Therefore regardless of the proportion of time and emphasis given to these subjects, the teacher education is likely to be largely either concurrent or consecutive as already mentioned.

In the concurrent model, the students study both the subject content and the foundations of education courses. This is the model that is used at all the Primary Teachers' Colleges and National Teachers' Colleges in Uganda, while some of the programmes offered at the universities like Bachelor of Arts, Education (B.A. Education), Bachelor of Science, Education (B.Sc. Education) and Bachelor of Education (B.Ed) are also taught using the same concurrent approach.

The teaching of these courses is sometimes divided between the schools/faculty of education and the other faculties while in other universities all the courses are taught in the faculty/school of education. For example, in Makerere University, foundation of education courses are taught at the School of Education while the subject content is taught at the other faculties. At the University of Pretoria on the other hand, all the courses are taught at the Faculty of Education.

The decision of whether to teach all courses at the school/faculty of education is likely to be a debatable one and will vary from university to university.

In the consecutive model on the other hand, education students first study for either a Bachelor of Arts (B.A) or Bachelor of Science (B.Sc.) at other faculties and then return to the university and join the school/faculty of education for either a certificate or diploma in education. For example Makerere University runs a Post Graduate Diploma in Education (PGDE) for students who have completed and passed either the B.A or BSc. These students then take one year covering foundations of education courses, professional studies and doing school practice. This model is also used in a number of universities in the United Kingdom and in New Zealand (Robinson and Latchem 2003a:13)

It is not clear whether the consecutive or the concurrent approach to teacher education is better overall although Robinson and Latchem (2003a:13) conclude *'… the consecutive model offers more potential for cost savings and flexibility in meeting fluctuating demand.'*

It would therefore appear that care is needed before an institution decides whether to use the consecutive or concurrent model taking into account the level for which the teacher is being trained for, the cost of this training *vis a vis* the existing resources and capabilities.

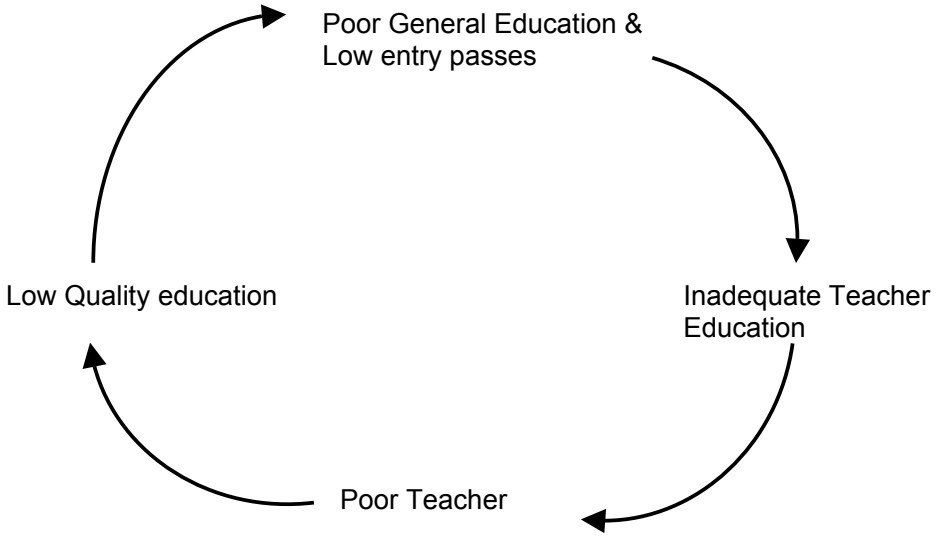
The next sub-sections 3.4.2 – 3.4.5 will now briefly discuss the different components of teacher education.

3.4.2 Subject matter studies

This component is normally meant to help teachers gain substantive knowledge and content of the subject he/she will teach. Subject matter studies is seen as a critical foundation for sound teacher education, especially since in many countries, majority of

the people joining teacher education institutions have lower passes than those joining other professions like law or medicine (Dove 1986:241, Iredale 1996:13, Robinson and Latchem 2003a:4). Dove also adds that this is what is responsible for the vicious cycle of low quality education especially in the developing countries. That is to say that trainees join the institutions with low general education and low entry passes are given sometimes inadequate teacher education and so turn out as poor teachers who will then go and teach and reinforce poor quality education in schools (see figure 3.2). And yet, '*…effective teachers are those with high levels of cognitive ability, higher educational levels and teacher training'* (Dove 1986:241).

Figure 3.2: Vicious Cycle of Poor Quality Education



The solution seems therefore to be either high educational levels for initial teacher education entry, strong subject matter coverage in teacher education programmes and/or In-service teacher education that helps teachers make up for deficiencies. However, other writers have debated the efficacy of majoring in academic subjects because this …*does not necessarily guarantee that teachers will have the kind of subject matter knowledge they need for teaching* (Kennedy 1991:14 as quoted by Ben-Peretz 1994:5992). An emphasis on subject content in the college without adequate guidance on **how** to deliver it and how to motivate learners to engage with the subject may not necessarily produce a 'good teacher.' For as (Robinson and Latchem 2003a:10) say,

> Subject knowledge is essential and influences what and how teachers choose to teach, but by itself it is insufficient for effective teaching and learning. To be effective, a teacher needs a combination of knowledge and skills…

Nevertheless, most teacher education programmes will have subject matter content as one of the components of the curriculum. The specific subjects of study will vary from institution to institution and will depend on the level for which the teacher is being trained and the school curriculum in the country. These may include among others Mathematics, Physics, Biology, History, Geography, Languages, Chemistry, Music and Art and Crafts (Odaet 1985:23). Also, as already discussed in 3.4.1, the model used for the teaching of these subjects will vary depending on the model being used at the training institution.

To plan for the needs of the different subjects covered, distance education programmes run for the training of teachers should therefore be planned taking into specific reference the needs and demands of the different subjects offered. For example, music, physics and biology would need a lot of practical work and this would have to be structured into the activities of the programme.

3.4.3 Foundations of Education/Education Studies

There has been a lot of debate and dispute about what really constitutes Foundations of Education. However, a number of teacher education programmes include courses like: History, Sociology and Philosophy of Education; and may also include education policy and contemporary issues (Ben-Peretz 1994:5992). Unfortunately, these courses have sometimes been taught as independent courses with little or no integration (Ben-Peretz 1994:5992, Dove 1986:250, Furlong *et al.* 2000:33) with the result that, as Dove says, '*teacher training curricula are often justifiably criticized as being rag-bags of ill-assorted and unintegrated precepts and theories'.*

These courses are included in the curriculum because they provide a theoretical background to the teaching career, for character building of the teachers and for creating general awareness of various issues impacting classroom teaching (Ben-Peretz 1994:5992, Dove 1986:249, Odaet 1985:26).

3.4.4 Professional Studies

Since teaching is considered as a profession, the professional courses are said to be core in the provision of specific professional skills. These courses are meant to help the teacher acquire the tools of the trade - to help prepare the teacher for classroom and school activities and responsibilities. So these courses include methods, curriculum and psychology courses (Ben-Peretz 1994:5992, Dove 1986:248, Furlong et al. 2000:34,

Odaet 1985:26). Through these courses, trainees establish links between the subject matter learnt and the classroom situation.

3.4.5 The Practicum

The practicum also sometimes called either School Practice or Teaching Practice is considered as the most important component of the entire teacher training curriculum. Quoting Tisher (1990:75), Ben-Peretz (1994:5993) says, a lot of importance is attached to the practicum because it was found to be

> … an extremely important, practical, satisfying component of pre-service education! The trainees say they gain a lot from it; that it is the most realistic aspect of their courses, helped reduce their anxiety about teaching, fosters their practical teaching skills.

The interest in the practicum is largely because it serves many purposes, some of which are already mentioned above by Tisher. Other reasons for this are that the practicum:

- Offers school experience (Ben-Peretz 1994:5993)
- Helps trainees gain competence, build up confidence and develop habits of self evaluation (Dove 1986:251)
- Gives the trainers and trainees opportunity to focus on actual practical work '…*specialized teaching activities, thus counteracting one of the criticisms of teacher education programs*… (Ben-Peretz 1994:5993).

Different institutions and governments have provided the practicum in different ways and the amount of time devoted to it also varies. Sometimes it is offered as a series of block periods or a few days each week, while trainees continue attending college/university (Dove 1986:251). But either way, the aim is to offer trainees opportunity to have a school experience that will prepare them for classroom and school activities after qualification.

The practicum is certainly an important component because of its close links to reality in the school setting. It is for this very reason that the United Kingdom has moved more towards School Based Teacher Training. In school based teacher education, schools are central to the training process and trainees are expected to spend more time in schools with the entire experience focusing on the teachers' and schools' needs and on integrating theory and practice. School based teacher education also requires greater

collaboration between the colleges/University of London and schools (Furlong *et al.* 2000:2).

However, in spite of all the interest and importance of the practicum, it has been criticized for sometimes being too poorly conceived and organized with students having insufficient contact with their trainers and supervisors (Dove 1986: 252). This may be much more true in developing countries where there are often financial difficulties with regard to the placement and monitoring of the teacher trainees. In fact in a study Odaet (1985:35) carried out in Ugandan teacher training institutions, most of the respondents complained of inadequate funds and teaching resources during the teaching practice.

In distance education programmes also, it has been difficult to provide for this because of the demands of providing for classroom practice (Perraton and Creed 2001:35). The plans, preparations, and all the logistics of providing for school practice make it extremely challenging in distance education, demanding therefore a lot more care in its implementation. Also, according to Fraser (April 1992:126), the UNISA model had challenges is the provision of teaching practice because of the *'…unrealistic separation or divorce between teacher trainer and trainee during teaching practice…'* and also because *'…many lecturers left the teaching profession many years ago and could be "out of touch" with the problems and realities of the trade'.*

Providing for teaching practice is certainly vital but unfortunately presents real problems to distance educators.

Regardless of whether the consecutive or concurrent model of teacher education is adopted, the ultimate purpose of including the different courses i.e. subject matter, foundations of education, professional studies and the practicum is so as to equip teachers with the competencies that they need so as to carry out their duties as teachers.

3.4.6 Criticisms of the Teacher Education curriculum

Although there seems to be agreement about the major components of the curriculum of formal teacher education programmes, a number of criticisms have been raised. Some writers have claimed that the curriculum:

- Is too theoretical with little or no integration between theory and practice (Odaet 1985:45, Dove 1986:244)

- Is often overloaded because in the words of Dove (1986:244, 249) *'some topics persist because they are hallowed by tradition even though their usefulness has passed'* and also '*sometimes trainees are introduced to theories with conflicting implications for teaching'*.
- Is overloaded as a result of having too many courses to be covered in too short a time.
- Has the practicum as a major component but that, this is sometimes poorly conceived and organised (Dove 1986:244)

See figure 3.2 for the vicious cycle of poor quality education.

To deal with all these criticisms thereby making teacher education more effective:

- There ought to be more deliberate effort at integrating theory and practice. The knowledge and skills teachers acquire during the training should promote more reflection, relating what is learnt in college/university to classroom work. This can be achieved through the methodology of training.
- The teacher education curriculum needs to be presented as a '*coherent and integrated package'* (Dove 1986:250). Disjointed courses on the entire programme however well intentioned are likely to confuse rather than equip the teacher.
- There ought also to be a closer working relationship between the training institutions and schools especially with regard to the practicum. It is in the schools where the 'nitty gritty' of teaching are daily experienced and this should be fed into the training process.
- The teacher education given should relate to the roles that the teachers will be expected to carry out on completion of their training. In this way, the entire teaching/learning process will be counted as relevant.

All these issues are critical and teacher education programmes being offered through distance education need to bear these in mind in their design and implementation

3.5 TEACHER EDUCATION IN UGANDA

3.5.1 History of Teacher Education in Uganda

Teacher education in Uganda is almost as old as school education in the country although initially the emphasis was on teacher training. It was first introduced at Makerere College [now Makerere University] in 1925 with a three-year training programme for intermediate schoolteachers and by 1927, this programme was drawing

participants from Uganda, Kenya, Tanzania and Zanzibar (Ocitti 2000:13). In 1944, the colonial government became more involved in teacher education and

> …the Government became responsible for the professional preparation of teachers of elementary and middle schools, while Makerere through its Education Department, was to concentrate on professional education of secondary school teachers. (Ocitti 2000:13)

Makerere's mandate grew when in 1948 its Education Department became the Institute of Education and it was now also charged with *'in-service professional development of teachers'* though all this time, Makerere run only undergraduate programmes. However in 1954, a Post Graduate Diploma in Education was introduced and in 1963 the Bachelor of Education. The Bachelor of Arts and Bachelor of Science with Concurrent Diploma in Education later replaced the latter. This development was a result of heavy criticism that the degree was too *'professional in content and rather weak in the" teaching subjects""* (Ocitti 2000:41). Today Makerere runs Bachelor of Arts and Bachelor of Science with Education degrees and a number of postgraduate programmes.

The post-independence government was keen to promote education in the country so a number of secondary schools were opened and as a result, there was a massive increase in secondary school education and Makerere was not able to produce enough teachers. A decision was therefore taken to transfer the Diploma programme to the then Government Teacher Training College Kyambogo. Kyambogo started in 1948 at Nyakasura and only moved to Kyambogo in 1954, became a National Teachers' College (NTC) in 1964 and admitted its first Diploma students in 1965 (Adupa, 1998:63). Today Uganda has 10 National Teachers' Colleges producing a total of nearly 10,000 teachers each year. These teachers are meant to teach in the lower Secondary School classes but where there is lack of teachers, they have been known to teach even 'A' level classes (Republic of Uganda May 2001:34).

Perhaps it should also be mentioned that, it is no longer only government institutions that are engaged in the training of teachers in the country. Private Universities are also doing the same - training Diploma, Graduate and Post-graduate teachers.

The next sub section will now focus on the history of INSET in Uganda.

3.5.2 History of In-Service Education in Uganda

According to Odaet (1985:65) while referring to Ravensdale (1966) says '*the term "In-Service Training" as applied to teachers in Uganda came into prominence only since the publication of the Uganda Education Commission of 1963'*. The purpose of In-service education then was *'…that of providing background studies for teachers to make their teaching of certain subjects more effective through the deepening of the teachers' own knowledge'* (Odaet 1985:65).

However, prior to independence In-service education was not well planned but was instead haphazardly organised often times a result of individual headteachers and individuals' efforts. This was with the exception of a few courses like the course ran by Makerere from 1953 for purposes of upgrading 'Vernacular' teachers. After independence, there were drives to change the school syllabi and as a result a number of courses were ran to introduce teachers to the new syllabi (Odaet 1985:67). According to Trevaskis (1969) as quoted by Odaet (1985:68), the major aims of In-service courses then were,

- Upgrade teachers
- Acquaint teachers with the new syllabi,
- Provide deeper content knowledge on subjects taught
- Introduce teachers to new methods of teaching the new courses launched in Mathematics and Science

In the troubled Idi Amin years, in-service activities shrank tremendously only to be revived in the 1980s. During this period the main in-service activities involved the upgrading of Grade II teachers to Grade III, and various workshops and seminars for tutors of National Teachers' Colleges.

The period from 1990s has perhaps seen the greatest increase in in-service activities. However, as the Teacher Education Department, (Teacher Education Department [s.a]:16) says, *the majority of our teachers are involved in In-Service Education and Training for higher qualifications and yet some of those higher qualifications are not relevant to the classroom'*; but suffice it to say that some of these courses are:

- Training of untrained primary school teachers by distance education
- Training of Headteachers by distance education

- Upgrading of Grade III teachers to Diploma level using a sandwich programme where the teachers report to the colleges during school holidays and during the term continue with their teaching loads
- Upgrading of Diploma teachers to degree level by distance education
- Specific subject seminars, workshops and conferences

The Ministry of Education is hoping to have more organised and supervised In-Service Teacher Education and in its Teacher Development and Management Plan (Teacher Education Department, [s.a]:16) proposes among other things that:

- Training needs be identified
- Teachers to be trained be identified
- Teachers proceed to attend only those courses that are relevant to the teaching profession. Those teachers who choose to study 'irrelevant' courses will be obliged to resign!

With these efforts, perhaps In-service teacher education will gradually become more organised and well planned.

This history of teacher education in Uganda certainly shows that there are various categories and avenues for the training of teachers in Uganda. The different categories of teachers trained in the country will be briefly described in section 3.5.4 but the mission and objectives of teacher education will first be presented.

3.5.3 Mission and objectives of Teacher Education in Uganda

Although this study is focusing on INSET, it is important to outline the mission and general objectives of teacher education and the objectives of teacher education for secondary school teachers; because any INSET provided should be with this mission and objectives in mind.

a) Mission of Teacher Education

The Ministry of Education and Sports Executive Summary (Ministry of Education and Sports [s.a]:66) outlines the mission of teacher education in Uganda as, t*o provide for, support, guide, coordinate, regulate and promote quality Teacher Education for the production of competent and ethical teachers.*

b) Objectives of Teacher Education

According to the Government White Paper on Education, (Republic of Uganda 1992:137-138) the following should be the objectives of teacher education in the country:

i) To broaden the student teacher's own academic knowledge and to deepen his/her knowledge of the teaching subjects as well as his/her understanding of the developmental stages and needs of the child;
ii) to produce competent, reliable, honest and responsible teachers;
iii) to produce highly-motivated, conscientious and efficient teachers;
iv) to develop and deepen attitudes conducive to development, respect for work, loyalty, self-reliance and to cultivate the desire for life-long education;
v) to instil professional ethics and develop an inquiring mind for innovative education;
vi) to cultivate a sense of national consciousness, patriotism and allegiance to the professional code of conduct;
vii) to prepare teachers for co-curricula activities as well as for guidance and counselling as part of their duties; and
vi) to prepare teachers adequately for efficiency in educational administration, management, evaluation and measurement

A close look at these objectives reveals that Teacher Education in Uganda is expected to train teachers with the needs of the child at the centre of all its activities. It also indicates interest in the training of an 'all round teacher' through the covering of a whole cross section of issues including:

- Teachers' knowledge of the teaching subject
- Initiative and creativity amongst the teachers
- The teacher's character
- The teacher's administrative and management roles
- Patriotism in teachers

However due to lack of evaluative studies of teacher education programmes in the country, it is not clear how far each of these objectives is being deliberately attended to in the various teacher education programmes and it is also not certain if this so, how far these are being achieved. Unfortunately this is beyond the scope of this study but is definitely an area for further study.

This particular study is focusing on the INSET for secondary school teachers in Uganda so the next sub-section gives the objectives of teacher education for secondary school teachers which should be the objectives of INSET for secondary school teachers.

c) Objectives of secondary Teacher Education

The same Government White Paper on Education, (Republic of Uganda 1992:146-147) also states the objectives of secondary teacher education in the country:

i) To produce new teachers for teaching in the proposed two types of secondary schools (Comprehensive and Vocational);
ii) To equip teachers with knowledge and methods that enable them to counsel students and guide them for future education and for employment within the world of work
iii) to produce qualified and specialised teachers for language, practical and vocational subjects;
iv) to produce teachers who have mastery of their teaching subjects;
v) to retrain through in-service and distance education, the current stock of teachers to cope with the new curricula in secondary schools.

It is gratifying to note that the government of Uganda recognises the place and importance of INSET and so found it fit to include in the White Paper INSET and distance education for retraining of secondary school teachers. However before outlining some of the INSET initiatives in the country, the next section briefly explains the different teachers in the teaching service.

3.5.4 Categories of teachers

The categories of teachers in the country arise out of the different avenues for training and the classes that the teachers are expected to teach.

a) Grade II teachers

Grade II teachers were those who had completed primary school or Junior Secondary School and trained for three years. However the Grade II Teachers' Certificate has been phased out although according to 2002 School Census there were 48 teachers with this qualification teaching in secondary schools (Republic of Uganda 2002:119). It is not clear however whether these teachers are holding this Grade II Teachers' Certificate as the highest qualification.

b) Grade III teachers

These are teachers who teach in the primary schools although with the growing number of pre-primary schools some of these teachers may be found teaching in the pre-primary. There are two routes to acquiring the Grade III Teachers' Certificate and this is direct entry into the Primary Teachers' Colleges (PTCs) after 12 years of schooling and in-service training for those wishing to upgrade from Grade II to Grade III. Uganda has a

total of 64 PTCs all of which are government owned (Ministry of Education and Sports 1999:5).

Majority of the Grade III teachers are those trained for two years in the PTCs. The minimum entry requirement is an 'O' level Certificate with 6 passes including in Mathematics and English Language. However with the increased number of children completing school education, more colleges are admitting those who have completed 'A' level (14 years of schooling). Nevertheless, regardless of whether a candidate joins the PTC with 'O' or 'A' level, they all take two years in training.

c) Grade IV teachers

This grade has also been phased out however it is not clear whether the school system still has teachers with this as the highest qualification although in 2002, the secondary school system had 100 teachers with this qualification. (Republic of Uganda 2002:119). Grade IV teachers were those who had upgraded from Grade III and were specifically trained by the then Institute of Education, Makerere University to teach in the Primary Teachers' Colleges.

d) Grade V teachers

These are diploma holders and they constitute the majority of the teachers in the secondary schools in the country for as the Republic of Uganda (May 2001:24) in the study that was carried out to examine teacher utilisation in secondary schools, concludes *'most of the districts registered more than average proportion of teachers who possess a diploma in education (68%)'.* Grade V teachers include primary school teachers, secondary school teachers and teacher trainers.

Like the Grade III teachers, there are two avenues to gaining this qualification.
The first avenue is by direct entry into the 10 National Teachers' Colleges (NTCs) after passing 'A' level and thereafter training for two years. This category of teachers is expected to teach in the lower secondary school levels – that is teaching only Senior 1 – 3 classes (See figure 1.1 for structure of school education). The reality however is that, many diploma teachers are also teaching higher classes including 'A' level and according to the Republic of Uganda (May 2001:34) *'the deployment of Diploma holders to teach in Advanced level classes is not only inappropriate but could also be a reflection of shortage of qualified teachers in the schools affected'.*

The other avenue for gaining the diploma in education is by upgrading from Grade III Teachers' Certificate. Both the National Teachers' Colleges and some universities are offering this training. Students taking this option can choose to take the Diploma in Education (Secondary) so as to cross to teach in Secondary Schools, the Diploma in Primary Education for those continuing to teach in primary and the more specialised Diploma in Teacher Education for tutors of the PTCs.

e) Graduate teachers

These are degree holders and also include postgraduate degree holders. Initially, only Makerere University produced graduate teachers. However, nearly all the 14 universities in the country are now training graduate teachers.

As a result the degrees are also now varied but include:

- Bachelor of Arts or Bachelor of Science with Concurrent Diploma in Education (B.A/Conc Dip. Ed or B.Sc/Conc. Dip. Ed). This was a three-year full time programme that was previously run by Makerere University but which was phased out.
- Bachelor of Arts with Education or Bachelor of Science with Education (B.A. Educ. Or B.Sc. Educ.) This is also a three-year programme.
- Bachelor of Arts or Bachelor of Science and a Post Graduate Diploma in Education (B.A, PGDE or BSc, PGDE). These are teachers who after the bachelors' degree then rejoin a university for a one-year full time Post Graduate Diploma in Education.
- Bachelor of Education (B.Ed). This is being offered either as a two-year full time programme or as a three/four year distance education programme.
- Masters programmes.

The different teacher training institutions and the enrolment figures are given in table 3.3 while figure 3.4 illustrates the different training routes in relation to the rest of the education system.

Table 3.3: Various Institutions Training Teachers in Uganda

Institution	**Status**	**No. of institutions**	**Programme**	**Enrolment (1999 figures)**
Primary Teachers' Colleges	Government	64	Grade III Teachers' Certificate	21,472
National Teachers' Colleges	Government	10	Diploma in Education (Secondary)	11,130
			Diploma in Primary Education	
			Diploma in Teacher Education	
Universities	Government and Private	14	B.A. Conc Dip. Educ.	Not available
			B.Sc. Conc Dip. Educ.	
			B.A Education	
			B.Sc. Education	
			B.Ed.	
			PGDE	
			Various Masters and Doctorate Programmes	

Source: 1999 enrolment figures from Ministry of Education and Sports 1999:5.

Trained schoolteachers in Uganda's school system are therefore of varied qualifications while at the same time, there are still many in the teaching force without any training at all. However, the exact numbers of each category in not very clear but the different teachers in the secondary school system as of 2002 are given in table 3.4 and the percentages given in figure 3.3.

Table 3.4: Teachers in Secondary Schools by Qualification and Gender- 2002

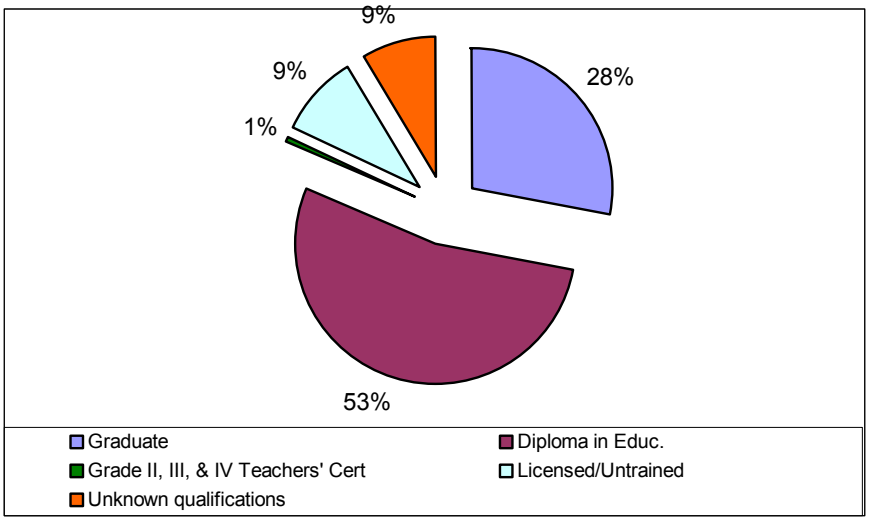
Qualification	**Gender**		**Total**	**% of Total**
	Male	**Female**		
Graduate	7,938	2,462	10,400	27.94
Diploma in Educ.	15,632	4,222	19,854	53.33
Grade IV	82	18	100	0.27
Grade III	85	11	96	0.26
Grade II	43	5	48	0.13
Licensed/Untrained	3,121	391	3,512	9.43
Unknown qualifications	2,666	551	3,217	8.64
TOTAL	**29,567 (79.42%)**	**7,660 (20.58%**	**37,227**	**100**

Source: Figures from Republic of Uganda 2002:119

According to these figures, it is particularly disturbing to note that there are teachers who by nature of their qualifications, if these are their highest qualifications, should not be teaching in the secondary schools and these include 100 Grade IV, 96 Grade III and 48

Grade II teachers. There is however the possibility that these teachers hold these qualifications but in addition have higher qualifications.

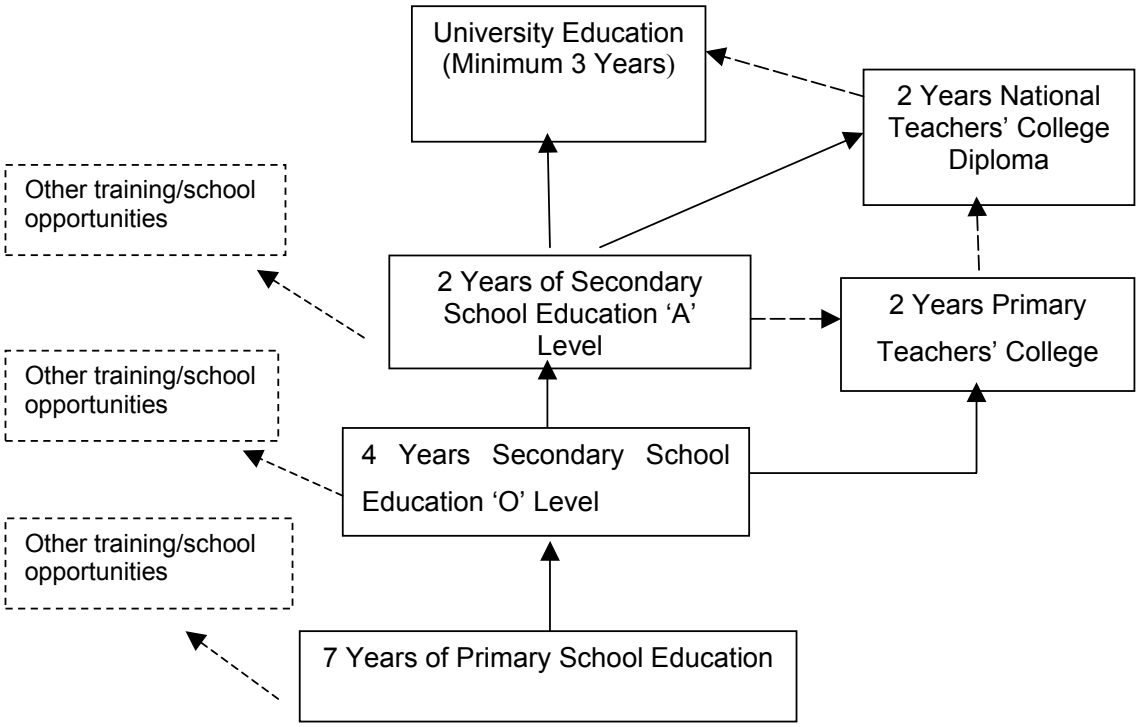
Figure 3.3: Teachers in Secondary School by Qualification – 2002



Source: Figures from Republic of Uganda 2002:119

The different training routes as discussed earlier can therefore be diagrammatically represented as given in figure 3.4.

Figure 3.4: Structure of the Education system Showing Teacher Training Routes



3.6 DISTANCE EDUCATION TEACHER EDUCATION PROGRAMMES IN UGANDA

As discussed in the earlier chapters, there is still great need for more teachers for the school system in Uganda; however, the current teacher training schemes are not adequate to train all the new entrants and at the same time train the untrained and upgrade the under-trained. As Odaet (1988:687) says, one of the major problems facing the education system in Uganda is "*the shortage of qualified teachers and the increasing number of unqualified teachers.'* Distance Education has therefore been seen as a viable alternative of supplementing the efforts of the full-time teacher training colleges.

The government White Paper on Education also particularly acknowledges the role that distance and open learning can play in this. So the Ministry of Education and Sports has recommended the use of distance and open learning methodologies for the training and retraining of teachers. The White Paper on Education recommends,

> From 1992/93 onwards crash programmes for training and re-training teachers will be mounted. Increased enrolment and training of teachers will be undertaken … through the in-service system, training on the job and long distance. (Republic of Uganda 1992:4)

To implement these recommendations, Uganda moved on to start distance education projects in teacher training. In January 1992, Mubende and Kiboga districts launched the Mubende Integrated Teacher Education Project (MITEP) so as to train their untrained primary school teachers. The success of this project led to the launching of the Northern Integrated Teacher Education Project (NITEP) with the aim of training the untrained primary school teachers in the northern region of the country. This project has also wound up but the former Institute of Teacher Education, Kyambogo (ITEK) now Kyambogo University, is now running it as a national programme. The same applies to the Teacher Development and Management System (TDMS) that was also launched as a pilot project, this time for the training of Headteachers. TDMS wound up as a project and the programme is now also being run by Kyambogo University as a national programme (Aguti 1996:13-14, Aguti 2000:260)

Apart from these efforts at using distance education for the training of teachers, Makerere University the oldest university in the country also launched an External Degree Programme (EDP) in 1991. Under this programme, three undergraduate degree programmes are currently being run: Bachelor of Commerce (B.Com) Bachelor of

Science (BSc) and Bachelor of Education (B.Ed). The B.Ed programme is meant to upgrade diploma teachers to Bachelors level.

There is growing interest in the private universities also in distance and open learning. Uganda Martyrs' University has, for instance, launched three diploma programmes that are being offered by distance education with a total of 500 students enrolled for Diploma in Advanced Education Management, Diploma in Democracy and Development Studies and Diploma in Banking Management (Uganda Martyrs' University 2003). Mukono University, another private university, has also launched a Bachelor of Education (B.Ed) programme.

The declaration of Universal Primary Education (UPE) has created additional challenges to education in the country with regard to teacher supply and demand. Primary school enrolments have more than doubled, creating more need for trained teachers. Also as these children join secondary school and create a huge bulge, there will be need for more secondary school teachers as well. Already, according the Commissioner for Secondary Schools Yusuf Nsubuga, *'the Government is short of 710,000 secondary school teachers'* (The New Vision 5th May 2003). The national teacher/pupil ratio at secondary school is 1:18 which is actually very good (Republic of Uganda 2002:116). However this masks the need for teachers in specific subjects especially English Language, Mathematics and other Science subjects.

It is therefore clear that Uganda has keen interest in the use of distance and open learning for the education of its citizens and for meeting its need for more and better-qualified teachers. It has already used distance and open learning for training, retraining and upgrading its teachers and so the next sections will now discuss each of these programmes.

3.6.1 Mubende Integrated Teacher Education Project (MITEP)

As mentioned earlier in Chapter 1 section 1.1 the government declaration of UPE was in part a response to what the White Paper on Education had presented. However prior to the launching of UPE, some districts in Uganda were fore sighted and saw the need to train their untrained and under trained teachers. The first districts to do this were Mubende and Kiboga Districts that had up to 80% untrained teachers. An In-service distance education project Mubende Integrated Teacher Education Project (MITEP) was launched in the two districts in January 1992 and run till April 1995 with funds from the Overseas Development Agency (ODA), Action Aid United Kingdom (AAUK), the

Government of Uganda and the Local District Administrations of Kiboga and Mubende. The project was then run by the districts in collaboration with the Primary Teachers' Colleges with the following aims:

i) to improve the quality of primary education in Mubende District by providing practical access to high quality education and training of untrained primary school teachers;
ii) to test the feasibility and evaluate the cost effectiveness of the MITEP teacher training methodology, in order to assess its worth as a model for replication throughout Uganda.
(Robinson and Murphy October 1996:15)

This project was launched with 900 students who were selected using results of a placement test that every short listed applicant did (Robinson and Murphy October 1996:17). These students had to sit the placement test because they did not have the minimum entry requirements for entry into a Grade III Teachers' Certificate Course. The placement test was therefore supposed to establish entry abilities of the candidates and to provide equivalent passes.

The course was run using a study package that included:

- Written study materials
- Residential sessions; and
- Student support services.

These study materials were developed based on the Grade III revised Primary Teachers' College syllabus for the same subjects as those offered in the PTCs which were:

- Foundations of Education
- English
- Mathematics
- Science
- Social Studies
- Teaching Practice

At the end of the study programme, the students of this project were then assessed in the same way as the residential Primary Teachers' College students.

Achievements of MITEP

Overall, it can be said that MITEP was successful although it faced some problems. The following are some of these achievements:

a) Training of Teachers

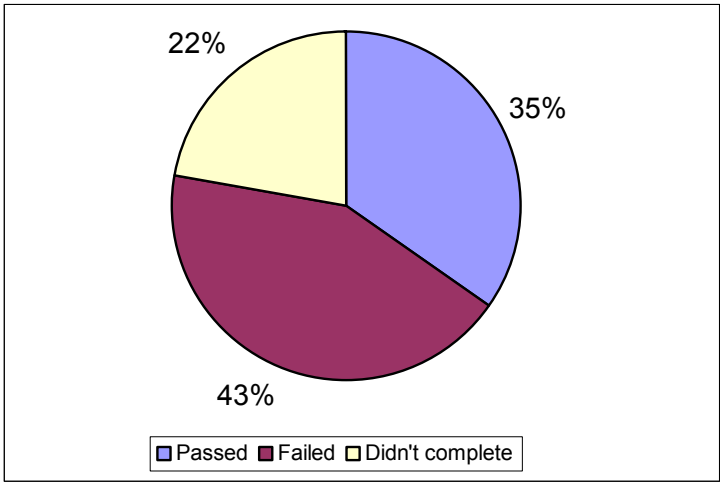
Although MITEP set out to train 900 teachers and actually proceeded to recruit that number, not all the 900 completed and/or passed the final examinations. Only 306

(35.4%) completed and passed all the examinations and therefore attained the Grade III Teachers Certificate, 384 (42.7%) failed the examinations while 197 (21.9%) did not complete the course (Robinson and Murphy October 1996:17). Figure 3.5 illustrates these completion rates. Although the pass rate was only about 35%, it can be said that at the end of the project, MITEP had helped 306 previously untrained teachers receive training and gain certification.

Depending on only examination pass rates to evaluate the success of a programme is not adequate but it is difficult to assess this project using other measures due to lack of data.

Nevertheless, it can be argued that since no learning is really totally futile, of those who failed the examinations, some learning must have taken place and so perhaps they emerged better teachers than they were before. For, as Robinson and Murphy (October 1996:21) found out, *'even where teachers did not succeed, benefits were frequently claimed (improved lesson planning and schemes of work, better classroom organisation, more use of locally made visual aids, and increased knowledge of subjects and teaching methods)'.*

Figure 3.5: MITEP Completion Figures 1992-1994



b) Increased Interest in Distance Education

MITEP became the precursor to similar distance education projects in other districts and eventually nationally. The lessons learnt from this project were utilized in the launching of the Rakai Integrated Teacher Education Project (RITEP) based in Rakai District and

later the Northern Integrated Teacher Education Project (NITEP) that was based in the North and East of the country (Aguti 2000: 259, Robinson and Murphy October 1996:22).

It is particularly important to note that the government-funded NITEP began by utilising materials that were developed for MITEP - an indicator of government's increased interest and support for distance education. In a small but significant way, MITEP helped in this regard.

3.6.2 The Northern Integrated Teacher Education Project (NITEP)

The Northern Integrated Teacher Education Project (NITEP) was started in April 1994 as part of the Northern Uganda Reconstruction Programme (NURP). From 1986 to date, some parts of the North and East of Uganda have been ravaged by war and civil strife that has destroyed social services and all other sectors leaving the districts paralysed (Aguti 2000:259, Wrightson 1998:13). Government therefore set up NURP in a bid to help those affected districts. Education was one of those services that needed reconstruction.

The objectives of NITEP were:

i) To improve the quality and performance of 3,040 untrained school teachers on the Northern Districts in a two year period.
ii) To increase the number of trained and qualified primary school teachers in the Northern Region by about 17 per cent in the four-year implementation period.
iii) In four years, to have tested the viability and cost-effectiveness of an innovative teacher training methodology so as to evaluate its worth as a model for replication on a nationwide scale (Wrightson 1998:16)

To achieve these objectives, NITEP used a study package that was in many ways similar to that used by MITEP. This included:

- Printed study materials
- Audio cassettes. This was limited and did not cover all the subjects of study. The only subjects that had the audio component were Professional Studies, Music and Mathematics (Wrightson 1998:24)
- Student study group meetings mainly through the study centres and the Coordinating Centres.
- Residential sessions
- Tutor visits and support

Achievements of NITEP

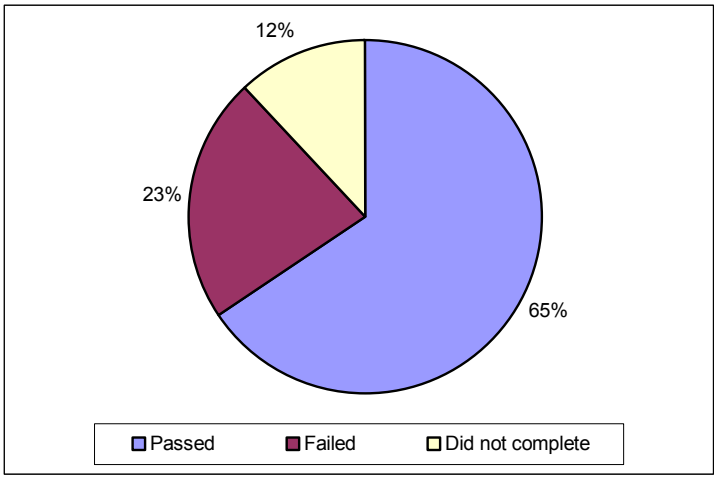
This sub section will briefly outline some of the achievements of NITEP.

a) Training of Teachers

At the beginning of the project, it had specifically been stated that NITEP intended to train a total of 3,040 teachers, thereby increasing the number of teachers in the region by 17%. 3,128 students enrolled for the training programme but of these, 2,755 sat for the Grade III Teachers' Certificate Examinations. Of these, 1,763 passed the examinations after the first sitting and a further 288 after the second sitting giving a total of 2,051 (66%) (Wrightson 1998:55).

So by the end of 1998 NITEP had succeeded in training and passing 2,051 teachers; a commendable achievement considering the conditions under which NITEP was run in a war ravaged and troubled region. See figure 3.6 for the completion rates.

Figure 3.6: NITEP Completion Figures



When compared with MITEP, NITEP achieved a higher examination pass rate in spite of these tough conditions and I believe this was because of:

- The intensive follow up of students through student group meetings and the participation of the Coordinating Centre Tutors.
- Close involvement of the Ministry of Education in the overall supervision of the programme, unlike MITEP that only relied on the districts.

Figure 3.7 gives a comparative view of the completion and pass rates of MITEP and NITEP.

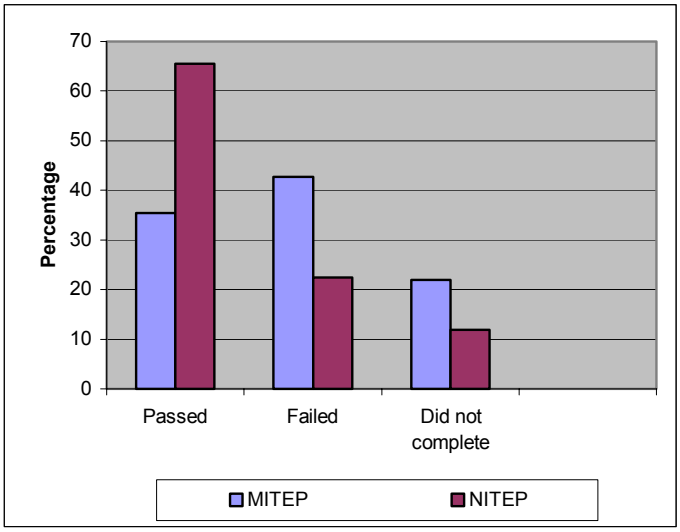
b) Distance Education 'experts'

One of the major components of NITEP was the training of student support staff. This was meant to ensure that NITEP had trained staff offering student support to its students. Besides, some of the staff of NITEP eventually registered for the University of London Diploma in Distance Education as a result of their involvement with NITEP. It could also be said that NITEP perhaps more than even MITEP helped boost national interest and appreciation of distance education.

c) Implementation Structure

The service delivery model that was used by NITEP involving Ministry of Education and Sports, Institute of Teacher Education, Kyambogo (ITEK), Primary Teachers' Colleges and Primary Schools has become the basis for the national implementation phase. Under the Primary Teacher Development and Management Plan, Coordinating Centres are expected to play a very pivotal role in the training and monitoring of trainees. This is a NITEP legacy.

Figure 3.7: MITEP & NITEP Completion and Pass Rates



3.6.3 Teacher Development and Management System (TDMS)

Teacher Development and Management System (TDMS) was developed as part of the overall Primary Education and Teacher Development Project (PETDP). Funding for this component came from various sources including, Government, IDA, USAID, (in its initial stages) and The Royal Netherlands Government, Irish Aid at the later stages. TDMS

activities were initially meant to cover only 10 districts but this eventually spread to all the districts of the country.

The overall aim of TDMS was to improve teaching and learning in primary schools by developing a teacher education system that *'integrated pre- and in-service training approaches'.* The specific objectives of TDMS were:

- 'to develop and streamline TE curricula…'
- 'to develop materials… to foster the implementation of the new curricula'
- to conduct training of teacher educators…'
- to set up a TE framework based on a network of core primary teachers colleges(PTCs) and associated coordination centres (CCs) and outreach primary schools (OSs);'
- to use the core PTC-based network to conduct pre-service and in-service training of primary school teacher and headteachers (Odaet and Higwira 1994, Makau April 2001:4).

To achieve these various objectives, a number of different training programmes were run by TDMS. These included:

- In-service training programme for the untrained primary school teachers
- The Headteachers' Management Training Course
- Outreach Tutor Training Programme

TDMS run these programmes through a Central and District Management Framework that involved:

- Ministry of Education and Sports officials at the Headquarters,
- Principals, Deputy Principals and Tutors of Primary Teachers Colleges,
- Institute of Teacher Education Kyambogo
- District Education Officers

The study package for the various programmes was very much similar to that used by NITEP and as mentioned earlier, the concept of decentralised management of the programmes and provision of student support was a NITEP legacy.

Achievements of TDMS

a) Training of Education Staff

TDMS has been able to train different categories of education staff ranging from Principals of PTCs to Community Mobilisers. Table 3.5 gives a summary of total numbers trained under the different categories.

Table 3.5: Education Staff Trained Under TDMS

Staff Category	Numbers Trained
Untrained Teachers Upgrading to Grade III	8,685
Headteachers	7,414
Principals of Core PTCs	18
Deputy Principals in Core PTCs	36
Heads of programmes based in Core PTCs	54
Coordination Centre Tutors	539
Volunteer Community Mobilisers	13,000

Source: Adapted from Makau (2001:9,10)

However, it should be pointed out that in spite of these achievements, with the launching of UPE, the needs and pressures far outstrip this. The launching of UPE meant a further recruitment of untrained teachers and TDMS did not have the capacity to absorb all these numbers (Makau April 2001:13). But the addition of more than 8,000 trained teachers to the primary school system is something that the country would never have achieved using the full time residential training through the PTCs. It is, however, difficult at this point to work out completion rates for each category because admission figures are not available.

b) Development of Teacher Education Curricula and materials

For each of the programmes that were run, TDMS developed study materials. Both the distance education students and the internal students are using these materials. Also, TDMS introduced in the country courses that were not there before. For example, prior to TDMS, there was no training programme for headteachers in the country. The Outreach Tutor Training programme is also a new addition in the country. TDMS has therefore in this respect helped enrich Teacher Education programmes in the country.

c) Involvement of a Cross Section of Education Staff

As mentioned earlier, to run the TDMS programmes, a cross section of education staff from the Ministry of Education and Sports, Teachers' Colleges and from the districts were all involved. Bringing together all these persons was a major achievement. Albeit it did create some other managerial problems but this is a good beginning of integration of staff and services; an important element that is still missing in the Uganda education system.

Overall, it can be said that TDMS achieved most of its objectives and the fact that now there are plans to institutionalise its activities is testimony that the government of Uganda has confidence in distance education for the training of school teachers, particularly in the light of Universal Primary Education (UPE). Apart from the growing interest and confidence in distance education, I believe TDMS has been hugely successful because of:

- External funding support that the scheme had and was as a result able to produce all the study materials required, hold a variety of workshops, and promptly and adequately pay staff involved in the programme.
- Involvement of the Ministry of Education and Sports, which in many ways, is a reflection of the political will to implement this scheme.
- The network of Primary Teachers' Colleges was utilised for the provision of student support.

3.6.4 Diploma In Primary Education (External) (DEPE)

The External Diploma in Primary Education was launched in April 1999 at the then Institute of Teacher Education (ITEK), now Kyambogo University. This programme was launched so as to upgrade Grade III teachers to Diploma level using distance education; and the students enrolling for this Diploma are expected to take a minimum of three years and a maximum of five years.

The general aims of the programme are:

- Increase intake in Primary Education up-grading courses to meet urgent national needs of the teachers in Primary school.
- Provide opportunity to eligible and interested teachers who can not pursue full-time courses in the colleges/institutions or Universities
- Develop a more flexible mode of education that caters for a variety of needs, changing circumstances and learning requirements of the teachers.
- To develop manpower for Universal Primary Education.

(Kyambogo University Records)

To achieve these aims, the programme is run using a study package that includes print based study modules especially developed in a distance education mode, compulsory residential sessions and student group meetings.

Achievements of the Diploma in Primary Education

Although this programme is only in its third year of running, there have already been some achievements. As mentioned earlier in Section 3.5.4b, to teach in the primary schools in Uganda, a teacher needs a minimum of a Grade III certificate. Therefore up-grading teachers to the Diploma level does not add any new teachers to the teaching force. It however enables teachers to up-grade to a higher qualification. For this reason it cannot therefore be said that this Diploma programme solves the need for more trained teachers to cope with UPE but since through this programme the teachers attain higher qualifications, it can be assumed that they gain deeper knowledge and skills in their subjects and responsibilities. Also, more and more districts are recruiting only those teachers that have a minimum of a Diploma in Education for headship positions. In this regard, this Diploma programme should help increase the number of teachers that can rise to this level.

Since it's launching in April 1999, there have been two intakes already. The first intake was of 800 students, while the second was of 1800 students. Unfortunately it is not clear how many precisely of these students are continuing with the programme. Apart from training more teachers, the study materials being produced on this programme are being used by other teachers as well on similar but full time programmes. In so doing, this programme should help strengthen the Diploma in Education Programmes in the country.

Perhaps one last thing that needs to be pointed out here is that, this programme is working in close cooperation and collaboration with core Primary Teachers Colleges that are implementing the TDMS programmes.

3.6.5 Makerere University External Degree Programme (EDP)

Makerere first run correspondence courses in 1965 when it ran a pilot course "Good Letter Writing". However, the first teacher education programme was the Teacher Training Course to upgrade Grade I teachers. Makerere then run other correspondence courses, but by 1980 correspondence activities had deteriorated gravely as a result of the devastating after effects of Idi Amin's rule (Aguti 1996:4).

With the hope of reviving the distance education programmes at the University, a plan to start External Degrees was included in the 1980 – 1986 University Plan. However, it was only in 1991 that the External Degree Programme (EDP) was finally launched with

two degree programmes: Bachelor of Commerce (B.Com) and Bachelor of Education (B.Ed) (Aguti 1996:4, 2000:265).

a) Objectives of the EDP

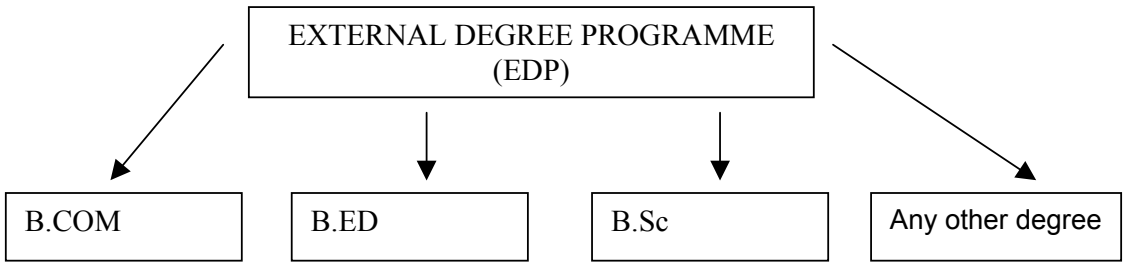
The EDP was launched with the following objectives:

a) to introduce degree courses by distance education and so increase university intake in some fields of higher education which meet urgent national needs;
b) produce good quality course materials which would also be used by the internal students and other people in the near future;
c) strengthen the university's distance education organisation on the basis of enrolment and practice
d) develop Makerere University's capability to offer a good distance education service, which will meet national, community and individual needs at undergraduate and postgraduate levels.

CCE (1990:19)

Under the EDP scheme, the Department of Distance Education can in collaboration with any other Department run any degree as a distance education programme. The B.Ed (External) is therefore being run as one of these degrees and it is being run in collaboration with the School of Education.

Figure 3.8: External Degree Programme (EDP) and the Different Degrees



b) Aims of B.Ed (External)

The B.Ed was launched with the overall aim of preparing *'the students for adequate professional competence in facilitating learning and to give the students in-depth knowledge of teaching subjects selected for specialization'* (CCE 1990:22).

c) Entry Requirements

Since the B.Ed (External) is meant to upgrade serving teachers, the minimum requirements are:

- *'… a grade V Diploma in Education or its equivalent from a recognised institution'* and
- *'A minimum of two years post Diploma experience'*
- Also as part of the general University regulations, only those with First Class or Second Class Diplomas are admitted. Teachers with Third Class Diplomas are in addition required to sit and pass the Makerere University Mature Age Entrance Examination. (Aguti 1996:5, Department of Distance Education 2000:4).
- *… certain subjects have special requirements and conditions. Candidates will only be allowed to include in their choice, subjects they had studied and passed'* (CCE1990: 21).

Initially, the B.Ed admitted mainly secondary school teachers and the subject options available then favoured them, however, over the years, the subjects offered have grown to include subjects meant for primary school teachers, teacher educators and education administrators and managers.

d) Curriculum

The curriculum for the B.Ed (External) programme reflects a traditional teacher education curriculum because it has three major components: Foundations of Education Studies, Subject matter Studies and Professional Studies. It is not clear why the B.Ed programme is following this approach to subject division but it could be because this has been the 'tradition' at School of Education. Each of these includes various courses as follows:

Foundations of Education

- History of Education,
- Sociology of Education,
- Philosophy of Education,
- Economics of Education, and
- Comparative Education

Professional Studies

- Educational Psychology,
- Curriculum Studies, and
- Subject Methods

Subject Matter

Each B.Ed (External) student is expected to choose two subjects from different categories of subjects on offer. The B.Ed (External) started with subjects not requiring laboratories and specialised equipment and facilities since the Department and the Institute Centres do not have the facilities to support such subjects. Also the subjects on offer depend on the subjects being taught in the secondary schools. The different subjects offered therefore include:

- **Arts and Social Sciences**: African Languages (e.g. Kiswahili, Luganda); Foreign Languages (e.g. English); Geography; History; Social Studies; Religious Studies; and Economics
- **Sciences:** Mathematics; Geography; and Economics
- **Especially combined subjects:** Literature in English, and English Language Studies
- **Vocational Studies:** Art and Craft; Business Education

The Practicum

The B.Ed (External) programme does not include the Practicum although the proposal for the launch of the EDP did include *'supervised Teaching Practice'* (CCE 1990:22). It is not very clear when the decision to cut out the practicum was made; but possibly this was because it was assumed that, since these are already trained teachers the training programme would focus on raising their subject matter competence and professional growth would be achieved without necessarily having supervised teaching practice. This may also be because running the practicum demands a lot of logistics, planning and management, something that I fear the Department may not have the capacity to undertake.

Besides helping the B.Ed (External) students acquire in-depth knowledge in their subjects, the programme is also meant to help the students develop and improve their professional competence. Lack of the practicum may therefore be a shortfall in the programme. How can the students be helped improve this professional competence if they are not given opportunity to put to practice what they will have learnt? Assuming that they are practising teachers is no guarantee that they are putting to practice what they learn.

The full spectrum of the major components of B.Ed (External) programme is also presented as table 3.6

Table 3.6: Bachelor of Education (External) of Makerere University

Programme	Bachelor of Education (External)
Administration and Management	Run by Department of Distance Education, IACE in collaboration with the School of Education
Cost **1$ = 2000Ug Shillings** **June 2003 rates**	**Tuition fees**: Sh. 400,000= each academic year. Paid in two instalments – first semester Sh.250,000=, 2nd Semester Sh.150,000=
	Other fees: Sh.50,000= registration for 1st Semester; Sh. 12,000= for 2nd Semester; Sh.60,000= for examinations each academic year; Sh.4,000= for new identity card; sh.1,500 for renewal of identity card
	Other costs: Upkeep during face-to-face sessions and during examination periods; Transport to and from venues for face to face; purchase of relevant textbooks and photocopying of other literature.
Study Package	**Print study materials:** Includes especially produced materials often referred to as 'Study Units'; handouts; relevant textbooks, photocopies of extracts
	Audio Cassettes: In some courses - not available for all courses
	Face to face sessions: Two centrally organised sessions each semester; especially arranged sessions at the study centres
	Student study groups: Organised by students in their localities and sometimes they involve a tutor
	Assignments: Various assignments are set in each course for both study purposes and for assessment
	Self-directed learning: As distance learners, students are expected to be largely self-driven and to study most of the time on their own
Entry Requirements	At least a Second class Diploma in Education **or**
	Its equivalent from a recognised institution **or**
	Has passed the mature Age Entry Examinations of Makerere University
Duration	Minimum of six semesters
	Maximum of 12 semesters
	Similar internal programme offered by Kyambogo University (formerly ITEK) 4 semesters
Objectives	Enable those working at Secondary, Primary and Teachers' College to upgrade the subject matter of the subjects they are teaching through acquisition of content and professional knowledge, skills, values, and attitudes to teach/practise those disciplines that will be offered
	Provide opportunity for students on the programme who are occupying administrative posts in their work places to upgrade in and acquire competencies, skills, and administrative knowledge relevant to their work
	Enable students to develop an evaluative mind in modern theories of development through the study of Development Studies
	Enable students to acquire and sharpen skills of Research and Report writing

Target Group	Primary School Teachers
	Secondary School Teachers
	Tutors of Primary Teachers' Colleges
	Administrators at various education institutions and offices
	Any other adults with the relevant minimum academic qualifications
Core courses	***Foundations of Education:*** Comparative Education, Sociology of Education, Education Administration, Economics of Education, and Philosophy of Education
	Educational Psychology: Human Learning, Human Growth and Development, Guidance and Counselling, Measurement and Evaluation
	Curriculum Studies: Curriculum Studies, General Methods of Teaching, and Educational Technology
	Development Studies: Issues in Development, Science and Technology, Health and Development, Industrialisation in Developing Countries, Political Economy of Education
	Research Methods and Research Project
Elective Courses	These subjects should be selected from any of the following areas of specialisations. Each student shall take two subjects
	Arts and Social Sciences: ***African Languages (e.g. Kiswahili, Luganda); Foreign Languages (e.g. English); Geography; History; Social Studies; Religious Studies; and Economics***
	Sciences: Mathematics; Geography; and Economics
	Especially combined subjects: Literature in English, and English Language Studies
	Vocational Studies: Art and Craft; Business Education
Pass Mark	50% In each course in each semester
Assessment	Continuous Assessment (coursework and tests) 40% of final examination mark
	Written examinations 60% of final examination mark
Award and Classification of Degree	Honours First Class: 4.40 - 5.0 Grade point, 80% - 100%
	Honours Second Class Upper Division: 3.60 - 4.39 Grade point, 70% - 79%
	Honours Second Class Lower Division: 2.80 - 3.59 Grade point, 60% - 69%
	Pass 2.0 - 2.79 Grade point, 50% - 59%

Source: Department of Distance Education (2000:3-6)

f) Achievements of the B.Ed (External)

Since its launch in 1991, the B.Ed has achieved a lot. There has not been any overall evaluation of the programme; however, from the different evaluations and from the Department's reports and records, it can be surmised that a lot has been achieved. These will now be discussed in relation to the objectives of the EDP.

Increased University Intake

The Department of Distance Education has helped boost the University intake numbers through its EDP. With its total population of nearly 7,000 students, which is 30% of the overall University student population, the Department of Distance Education has the largest student population. Prior to the launching of the B.Ed (External), Makerere University did not have any student for this degree except for students who were studying at the Institute of Teacher Education Kyambogo (ITEK) and registered for this Makerere degree. Even then only about 300 students were admitted each year. Since 1999, the B.Ed External has admitted more than 1,500 students each year and between 1991 and 2000 a total of 974 teachers have completed and graduated with Bachelor of Education; 1954 have completed and are yet to graduate while nearly 2,600 are continuing with the programme. See table 3.7 and figure 3.9 for the numbers admitted and those completing since 1991.

Table 3.7: B.Ed (External) Student Enrolment and Completion Figures 1991 - 2002

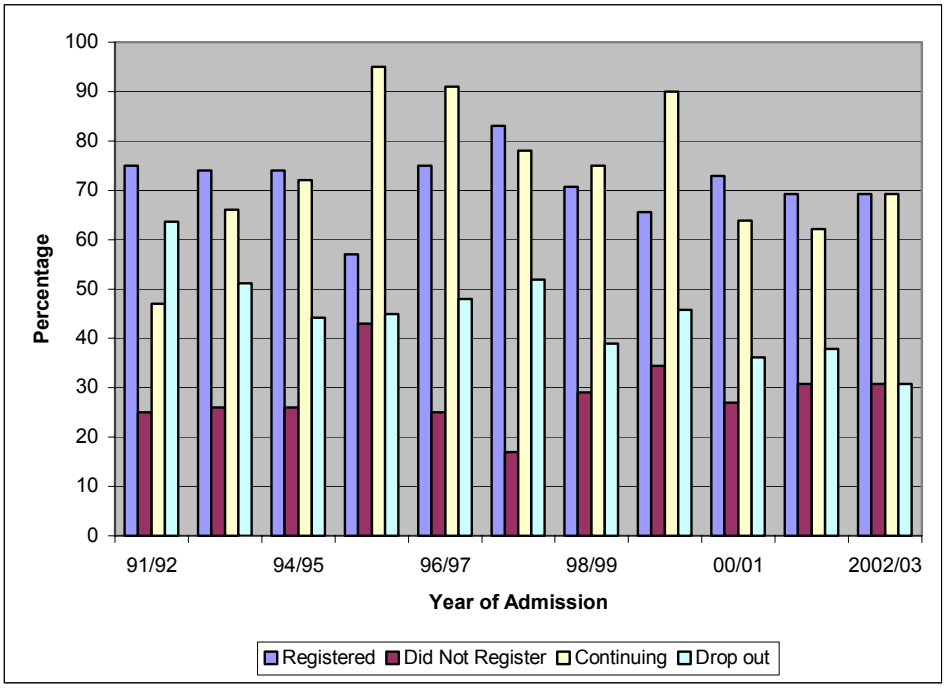
Year	Admitted	Registered	%	Did Not Register	%	Continuing	%	% Drop out
1991/92	198	148	75	50	25	*72	47	63.6
1993/94	178	132	74	46	26	*87	66	51.1
1994/95	120	89	74	31	26	*64	72	44.2
1995/96	233	132	57	101	43	*107	95	44.9
1996/97	600	450	75	150	25	*410	91	48.0
1997/98	360	300	83	60	17	*234	78	51.9
1998/99	980	693	70.7	287	29	**599	75	38.9
1999/00	2,500	1,640	65.6	860	34.4	**1355	90	45.8
2000/01	1,646	1,200	72.9	446	27.0	1051	63.9	36.1
2001/02	1300	900	69.2	400	30.8	809	62.2	37.8
2002/2003	1200	***830	69.2	370	30.8	***830		
TOTALS	**9,315**	**6,514**		**2,801**		**5,618**	**60.3**	**39.7**

* Those who have already graduated
** Those who have completed but not yet graduated
***Those who picked up admission letters

It is clear that the B.Ed has helped to increase student enrolment at Makerere and to upgrade a number of teachers. However, there have been no tracer studies carried out

to establish the impact of this training on the teachers' performance and its impact on the school system. This is an area that requires urgent attention.

Figure 3.9: B.Ed (External) Student Enrolment and Completion Figures 1991 - 2003



Developing High Quality Materials

The EDP uses a study package that includes:

- Written materials including, handouts, textbooks, reference materials and especially produced modules;
- Student study group meetings;
- Face-to-face sessions;
- Audio cassettes and radio; and
- Other student support services.

Written materials were supposed to be the core medium of instruction in this programme. However, the rate of development of the study materials has been extremely slow. A lot of study units have been written but only a few have been published. According to Bbuye (2000:120) only 9 titles have been published and 40 other titles are at different stages of production. There are two major reasons for this slow production of study materials:

- Inadequate funding. The B.Ed (External) relies entirely on fees paid by students which is far inadequate for all the programme costs. As a result of this pressure, the

Department has allocated only 30% of its budget to study materials development and this is too little for the bulk of materials that need to be produced.

- Some course writers have been very slow in writing even after they have been trained. So manuscripts are not being produced as fast they are needed.

Inadequate study materials therefore seems to be a major handicap of this programme for as it is pointed out,

> Unfortunately, the EDP still relies heavily on face-to-face sessions as the major form of support. This is partly because of lack of sufficient study materials which should really be the core of the study package (Department of Distance Education 2001:1).

Suffice it however, to say that whatever materials have been produced are being used by both the external and internal students of the university. In so doing, the programme has helped address the problem of lack of reading material in the university.

Another related development has been that some of the lecturers who have been trained in the development of distance education materials have gone further and written and produced other books using the skills acquired in these training sessions.

Contributed Towards Improving the University's Finances

The B.Ed (External) is one of the privately sponsored programmes of the University. In other words, each of the students on this programme pay fees which includes tuition fee of 400,000 Uganda Shillings (US$ 200) each academic year. The programme is then run from funds so generated. 57% of the fees paid by the students is remitted to the Department for the running of the programme while 43% is retained by the University for various services and activities. For example in the academic year 2002/2003, from a total of nearly 2,500 students on the B.Ed (External) programme, the University earned 1 billion Uganda Shillings (US$ 500,000 – June 2003 dollar rates). From this income, the B.Ed (External) programme alone contributes nearly 430 million Uganda Shillings (US$215,000) towards various University services and activities from the funds retained. Unfortunately, this policy 'robs' the programme of the very much-needed funds and as already pointed out, the programme has been unable to develop all the required study materials and provide a well coordinated support system.

Nevertheless, it can be said that the programme has helped boost the University's income.

Strengthened University's Capacity to Run Distance Education Programmes

After the correspondence courses of the 1960s collapsed, the university lost its capacity to run distance education programmes. However, since the launching of the EDP, the University capacity has grown stronger as evidenced by:

- Establishment of the Department of Distance Education in 1992
- Increase in the number of staff in the Department of Distance Education with some of them undertaking various studies in the field of Distance Education
- The Department was allocated an entire block for office space at the main University campus
- The study centres up country are being renovated and the face-to-face sessions and other programme activities are being decentralised.
- As part of the University's growing confidence in its ability to run distance education programmes, a Bachelor of Science (External) was launched in 2002.

The launching of the EDP has certainly helped rejuvenate distance education activities at Makerere University.

As discussed in the above sub sections, Uganda has run some teacher education programmes for various levels and with differing achievements. Table 3.8 gives a summary of these different programmes. However, in spite of these achievements, the programmes are still impeded by a variety of challenges that is the subject of the next section but a few lessons can be drawn from these programmes; lessons that any provider of distance education programmes in the country would need to bear in mind. These major lessons are:

- Preparation of study materials and the distribution of the same is central. MITEP, NITEP, and TDMS all seem to have been better prepared to launch their programmes because of prompt production of study materials. Makerere University, on the other hand, is still having problems providing all its required study materials
- A network of well managed and coordinated student support services is critical in promoting retention of students and could lead to better performance as reflected in NITEP and TDMS compared with MITEP.
- Institutions in Uganda seem to have problems establishing and maintaining their own study centres throughout the country; therefore, collaboration between institutions and departments for sharing of facilities and staff appears an effective strategy. However, for this to work well, roles and responsibilities should be clearly spelt out so as to minimise confusion and conflict.

Table 3.8: Summary of Distance Education Teacher Education Programmes run in Uganda from 1990 - 2003

Programme	Institution	Target Group	Study Package	Assessment	Major Achievements	Award
MITEP	Mubende & Kiboga Districts in collaboration with PTCs	Untrained P.S. teachers in the district	- Print study materials - Face-to-face sessions - Student group meetings	- Grade III Teachers' national Examinations - Teaching Practice	- 306 completed and passed the course - Created national interest in DE	Grade III Teachers' Certificate
NITEP	MOES as part of NURP in collaboration with ITEK & PTCs	Untrained P.S. teachers in Northern Uganda	- Print study materials - Audio cassettes - Face-to-face sessions - Student group meetings - Tutorial visits	- Grade III Teachers' national Examinations - Teaching Practice	- 2051 completed and passed the course - Training of student support staff - Development of study materials - Increased national interest in DE	Grade III Teachers' Certificate
TDMS	MOES in collaboration with ITEK, Districts & PTCs	- Untrained P.S. teachers - Headteachers - Tutors in PTCs - Committee members of Parents' Teachers' Associations (PTAs)	- Print study materials - Audio cassettes - Face-to-face sessions - Student group meetings - Tutorial visits	- Grade III Teachers' national Examinations - Teaching Practice - Headteachers' examination	- 8,685 completed and passed the Grade III Teachers' Certificate Examinations - 7,522 headteachers and deputies - 539 coordinating Centre Tutors - 13,000 Volunteer community mobilisers - Development of study materials - Increased national interest in DE - Promoted collaboration between various education offices and institutions	- Grade III Teachers' Certificate - Headteachers' Certificate - Attendance Certificate

DEPE	Kyambogo University	Grade III Teachers	- Print study materials - Compulsory face-to-face sessions - Student group meetings	- Examinations - Assignments/tests	- Recruited 1,800 teachers - Development of study materials - Collaboration with PTCs	Diploma in Primary Education
B.Ed (EXT)	Makerere University	Grade V primary & secondary school teachers	- Print study materials - Audio cassettes - Face-to-face sessions - Student group meetings - Assignments	- Examinations - Assignments/tests	- 974 completed and passed the course - 1,954 have completed and yet to graduate - 2,600 continuing with the programme - Study materials development - Strengthened MUK capacity to run DE programmes - Created national interest in DE	B.ED
B.Sc (EXT)	Makerere University	Holders of relevant Diploma or its equivalent	- Print study materials - Audio cassettes - Face-to-face sessions - Student group meetings - Assignments	- Examinations - Assignments/tests	- Admitted 75 students	B.Sc

3.6.6 Challenges facing Distance Education Programmes in Uganda

a) Sustainability

Nearly all the programmes discussed here, with the exception of the External Degree Programme and the Diploma in Primary Education, have had a heavy reliance on External funding. Although this helped start and run the programmes to the end of their project lives, it raises the question of sustainability. For as Makau (April 2001:21) says,

> The TDMS project illustrates the need for Uganda to pro-actively consider long-term sustainability of social development initiatives. External funds constituted the highest proportion of the resources invested in the project (e.g. over ¾ of Phases I-III…) Uganda needs to consider how dependence on external funding could be reduced.

Even the other programmes continue to be plagued by inadequate funding. This seems to be the case with the Makerere University EDP that has failed to produce all the required study materials due to inadequate funding since it relies entirely on student fees (Aguti 2000:276). Distance education can be cheaper but only in the long run. There must always be heavy investment initially. The question then is 'How willing are government and institutions providing distance education to invest in these programmes? Therefore as Uganda struggles to meet the enormous UPE and UPE bulge demands, the question of sustainability of the distance education teacher education programmes needs to be critically given attention.

b) Quality

Quality is of paramount importance in education and is also a concern of a number of institutions offering distance education programmes including those providing teacher education programmes (Tait 1997:2). The concerns are with regard to quality in:

- the programmes being offered;
- the candidates being recruited in the teacher training institutions;
- the services being provided in the distance education programmes;
- outputs of the distance education programmes; and
- education system as a whole

The issue of quality in still an unresolved one in Teacher Education. True, through these programmes a number of trained teachers have been added to the system; however, the enormous increase in primary school enrolments and the growing numbers of secondary schools in the country far outstrip these efforts. A lot more therefore needs to be done; otherwise the schools will continue to be filled by untrained teachers and this could adversely affect the quality of school education.

Also, whereas distance education is growing in the country there are still fears that the products are 'not as good' as those trained through the full time residential programmes. Unfortunately, no tracer studies have been carried out to establish the impact of these different programmes on the school system. Some of the reasons for these fears is because of low entry passes for those joining these programmes, the low pass rates and high dropout rates.

Distance education has been used to address inequalities, thereby giving its clients a second chance at education (De Wolf 1994:1558, Holmberg 1995b:13, Rumble 1992:19). This seems to have been the case with all the teacher education programmes that have been discussed in sections 3.6.1 – 3.6.5. Unfortunately, because majority of those joining these programmes had low entry passes, it has reinforced the perception that distance education is for failures.

In addition, distance education has been accused of having high dropout rates and low pass rates in spite of high initial enrolments (Fraser April 1992:122, Holmberg 2001:73, Keegan and Rumble 1982:228, Paul 1990:79, Perraton 2000:12). In the teacher education programmes that have been run in Uganda using distance education, dropout rates are unacceptably high and pass rates low. B.Ed (External) for example has an average dropout rate of 40% and with only minimal Upper Second Class Degree passes.

The onus therefore is on the providers of distance education to ensure that the systems put in place facilitate quality teacher training, otherwise distance education will continue to be viewed as an inferior alternative, good enough for failures and one that only produces mediocre graduates.

c) Relating to Policy on Recruitment

Government employs majority of teachers in Uganda and so their salaries are dependant on what the government policy is. For example, traditionally, primary school teachers were holders of a Grade III teachers certificate and so their salary was set at that level. However, with the opportunities for upgrading, it is becoming increasingly difficult for government to accommodate all the upgraded teachers in the salary budget. This is particularly the case for primary school teachers who upgrade to either diploma or graduate level.

Many of these teachers have upgraded but have had problems being registered and salary adjusted to the new level achieved. This is demoralising and is likely to affect the enrolments in some of these distance education programmes. For example, a circular from the Ministry of Education and Sports states in part, *'attainment of higher qualifications will not automatically lead to promotion to Grade V or Graduate teacher…'* (Lubanga 28th May 2002:3).

This challenge of increased wage bill is a scenario similar to that being experienced by South Africa for as NEPI (1992:31) says,

> It follows that any significant increase in the number of qualified teachers, and in the number of teachers who have upgraded their qualifications, will increase the education budget proportionally.

d) Integrating Information Communication Technologies in the Programmes

All the distance education programmes in Uganda discussed in this chapter relied- and for those still running continue to rely - on print materials and have not integrated other technologies. The challenge therefore is for distance education programmes in Uganda to begin to explore possibilities of integrating ICTs in their programmes. This is critical especially because of the widespread use of ICTs in various other sectors of society. Teachers trained in Uganda need to be knowledgeable in these ICTs if they are to have any competitive edge in the world of education today.

Also, in Uganda, a new syllabus on Computer Science has been developed for primary schools and for this syllabus to be effectively run the teachers involved must have knowledge and experience in computers. The other opportunities being created are the

different projects being run involving use of ICTs. For example, a total of 32 secondary schools are participating in the World Links for Development (WorLD) and so teachers in these and other schools certainly need exposure and skills to fully exploit the ICTS being provided. (Refer to section of 2.7.3 for more on WorLD). One way of achieving this is by integrating ICTs in the teachers training.

In addition, access to ICTs is also still poor and so designing programmes that heavily utilise technologies may be hampered by poor access to the same. The question of access by institutions, staff and students is therefore a critical one.

3.7 SUMMARY

This chapter was a critique of In-Service Teacher Education (INSET) provided in Uganda through distance education since 1990. Teacher education and teacher training in general were discussed and this included a discussion of the different approaches used to provide teacher education and the criticisms that have been levelled at teacher education. Finally INSET in general and INSET by distance education in particular as currently provided in Uganda was examined. A summary of each of these programmes was given including their achievements. The different programmes that have been discussed in this section do indicate that Uganda has attempted to use distance education for the training of school teachers and this has in many ways helped Uganda increase the number of trained teachers particularly for the primary section and to upgrade a number of secondary school teachers. However, as already indicated, there have been a number of challenges and in the face of increasing school enrolments, there is continued need for more and better teachers.

The next chapters will focus on exploring all these issues further as reflected by the research findings.

CHAPTER FOUR
METHODOLOGY AND CONTENT VALIDATION OF RESEARCH INSTRUMENTS

4.1 INTRODUCTION

This chapter focuses on presenting the methodology of the study and content validation of the research instruments. It therefore specifically covers:

- The plans carried out in preparation for the field work
- The different instruments used in the study and the reasons for using each of them
- Content validation of the research instruments
- Data collection and data analysis procedures.

4.2 RESEARCH STRATEGY AND DESIGN

There are various kinds of research and the choice of what type of research to carry out will depend on the purpose of research, the research question(s) being explored and the kind of data required (Johnson 2002:5, Scott and Usher 2000:3). This particular study was both descriptive and evaluative and hence involved the gathering of largely qualitative data. According to Ritchie (2003:28), descriptive research concerns itself with '*…identifying **what** exists in the social world…'* In so doing, such studies focus on:

- describing phenomena,
- identifying the different issues, and
- establishing how issues are understood.

These were the concerns of this study, to establish what is going on in the provision of INSET through distance education in Uganda. In addition, the study also concerned itself with describing the Makerere University B.Ed (External) programme. All this was established by reviewing various literature, interviewing policy makers and by use of questionnaires given to former, current and prospective students, tutors and managers of the B.Ed (External).

At the same time, the study attempted, by identifying the strengths and weaknesses of the programmes and by suggesting ways of addressing the weaknesses, to carry out a summative evaluation of especially the B.Ed (External) with a view to improving the programme. According to Ritchie (2003:39), evaluative research concerns itself with establishing how well a system, institution or programme works. This is the same

sentiment expressed by Patton (2002:224) who says that such studies focus on the '*…strengths and weaknesses of the specific program…'*

The study then utilised interviews, questionnaires and documentary analysis so as to understand INSET programmes provided in Uganda using distance education and to evaluate particularly the B.Ed (External) of Makerere University.

4.3 SCOPE

Distance Education is being used for various purposes; however, this study focused on Distance Education for In-Service Education of Secondary School teachers in Uganda. To gather the relevant data, the study sampled various stakeholders from the different regions in the country; section 4.6 details out the sample and the rationale for including each category.

However, since it was not possible to cover the entire country, eight districts were sampled from four regions in the country – Western, Central, Northern and Eastern Regions. The Southern Region was not visited because of the challenges of access and cost. Districts with National Teachers' Colleges were particularly targeted so as to reach students and tutors in these colleges. In addition, since majority of the students on the Bachelor of Education (External) come from Kampala, Entebbe, Wakiso and Mpigi, these districts were also included in the sample. Ultimately, the study therefore involved respondents from: Mbarara, Masindi, Tororo, Soroti, Kampala, Entebbe, Wakiso and Mpigi Districts.

4.4 PLANNING FOR RESEARCH

4.4.1 Review of instruments by experts

The research instruments used in this study were all self-developed after reflecting on the research problem and the literature reviewed. The literature reviewed was particularly useful in clarifying issues that the instruments needed to explore. Self-developed instruments are open to bias and could include questions that may be either unclear or open to different interpretation. So, to minimise this effect, all the instruments were reviewed by experts which, as Johnson (2002:180) and Yegidis and Weinbach (2002:209) say, is critical in ensuring the validity of research instruments. The questionnaires and interview schedule that were designed for this study were reviewed by both supervisors and were also discussed with the research support team from the Department of Statistics, University of Pretoria. In this review the focus was on:

- Content of the instruments and the relevance of the items included to the research problem and the research questions asked
- The language used in the instruments; particularly readability of the instruments and the appropriateness of the language
- The structure and layout of the instruments

Their views and comments were incorporated in both the draft instruments that were pilot tested and the final instruments used in the study.

4.4.2 Pilot testing of instruments

a) Selection of Participants in the Pilot Study and administration of the instruments

To ascertain the reliability of the instruments that were used, a pilot test was carried out. The different instruments were given to a sample of respondents who had been non-randomly selected. Although the B.Ed (External) draws its tutors, writers and reviewers from other higher institutions of learning as well, all the tutors and managers of the B.Ed (External) who participated in the pilot study were drawn from Makerere University alone. The researcher decided to focus on only those from Makerere University for ease of access. It would have been both costly and time consuming to attempt to sample participants in the pilot study from a wider area. Nevertheless, those reached were the tutors and managers the researcher considered most likely to give critical input on the instruments.

As far as the policy makers were concerned, only officials in the Ministry of Education and Sports headquarters were reached. This ensured that participants with good knowledge and interest in the subject of the study were reached but at minimum cost and time. Six officials from the Departments of Teacher Education, Higher Education and Secondary Education were approached to give their views on the draft questionnaire.

B.Ed (External) students are scattered across the entire country and are therefore difficult to reach since it was not possible to visit areas far from Makerere University. Based on this reality, students that visited the Department for various other reasons were invited to participate in the pilot test. Eight students accepted to participate in this exercise.

All the instruments were hand delivered and the participants given one week in which to respond to the instrument. All the students were then asked to return the instruments to the Department of Distance Education while the tutors, managers, and policy makers were followed up for the return of the instruments. Altogether 15 questionnaires were given to tutors and managers of the programme and 9 (60%) returned; 8 given to students on the External Degree programme and 4 (50%) returned while 6 were given to officials of Ministry of Education and Sports and 3 (50%) of the questionnaires were returned. Johnson (2002:95) says that a return of 60% is a desirable one for questionnaires. The rate of return of 50% for the students and the Ministry of Education and Sports officials is therefore not very good.

It should however be pointed out that at the pilot stage, policy makers were also given a questionnaire but this was later transformed into a structured interview schedule because questionnaire returns was relatively poor (only 3 were returned), besides, some officials expressed a willingness to be interviewed rather than fill out a questionnaire. In addition to all this, the answers received were brief so the questionnaire was transformed into a structured interview schedule so as to explore the different issues much more.

Apart from the poor return rate, the comments and results received from all the pilot study participants were helpful in the improvement of the final instruments.

b) Lessons Learnt

A number of lessons were learnt from this pilot testing and key among these were:

- Many of the respondents complained that the questionnaires were too long.
- Some of the items in the questionnaires were not relevant. For example, nearly all the students who participated in this pilot test could not respond to questions on 'Payment of tutors, writers, reviewers etc' because according to them, this information was not available to them.
- Another set of questions that were felt irrelevant by all the respondents were questions relating to some ICTs such as teleconferencing and video conferencing On the one hand, these were not understood by some of the respondents and on the other hand, it was felt that these were currently inapplicable to Uganda because of costs and lack of infrastructure to support it.
- Some of the terms/concepts used in the questionnaires were not understood by some of the respondents. For example the concept student support. As one tutor queried, *'what exactly do you mean by student support'.*

- The structure and format of the instruments needed to change so as to ensure logical flow and to provide for coding of responses.
- The questions in all the instruments were general to INSET distance education programmes with no focus on the B.Ed (External), which was one of the major intentions of the research. Other important issues like access to ICTs had not been explored in the instruments.

c) Adjustments made to the instruments

Following the pilot test results, a number of adjustments were made to the instruments. For example,

- Irrelevant items were excluded from the final instruments. All questions relating payment of tutors, writers and reviewers were deleted from the students' questionnaire.
- Concepts that were found to be unclear were explained. For example, an explanation of the concept student support was provided in brackets (see appendix II items 15c, 23e and 24e; appendices III and V items 16c, 21e and 22e; appendix IV item 16c; appendix VI items 15c, 22d and 23d).
- All the instruments were restructured to ensure coherence and logical flow. The format of the instruments was also changed so as to accommodate a column for entry of the variable numbers (as seen in appendices II – VI) included this column.
- Instead of asking respondents an open-ended question on which factors impact distance education in Uganda, the respondents were asked a YES/NO question (see items 10 of appendix II; item 11 of appendix III, IV and V). Using the responses from the pilot study and from literature reviewed, a list of factors was listed.
- A section focusing on the B.Ed (External) was introduced in all the instruments (see section D in appendices II, III, IV, V and VI).
- Questions relating to access to ICTs were also included in the final instruments (see items 25, 26 appendices II and IV, and 23, 24 appendices III, V).
- The policy makers' questionnaire was transformed into a structured interview schedule.

4.4.3 Securing permission to carry out research

To carry out any research in Uganda, a researcher has to get permission and an identity card from the National Research Council. The Council also writes letters of introduction to all the Chief Administrative Officers in the districts in which the research is undertaken.

The researcher therefore secured permission from the National Research Council and obtained an identity card and letters of introduction to the districts. See appendix IX for a copy of the identity card.

In order to get permission from each interviewee to hold and record the interview, it was vital to explain the nature and purpose of the research. Each interviewee was also assured of the confidentiality with which his/her responses would be handled. The same strategy was adopted for those who responded to questionnaires although, in addition, each questionnaire had an explanatory letter attached to it. See appendices II – V and also section 4.7.4.

4.5 CONTENT VALIDATION OF THE RESEARCH INSTRUMENTS

In chapters two and three a lot of literature was reviewed to establish what has already been researched and or written with regard to distance education, teacher education especially In Service Teacher Education (INSET) and with regard to distance education teacher education programmes. This review informed the formulation of research questions and the content of the research instruments. The next sections are an attempt to relate this review with the content of the research instruments.

4.5.1 Bio data of respondents

Yegidis and Weinbach (2002:85) say that background information (bio data) on the sample could be important although they also that, there is no rule this must always be included in every instrument. However, in this study, all the questionnaires and the interview schedule had questions pertaining to the background of the respondents. The questionnaires had questions on gender, age, work place and position while the interview schedule had questions on gender, work place and position only. It was deemed unwise to embarrass these officials with the very personal question of age considering there is sometimes unwillingness to reveal age (Yegidis and Weinbach 2002:86). However, since the questionnaires had an element of anonymity it was assumed this personal question could be safely answered.

This background information on the respondents particularly for students, tutors, managers and administrators of B.Ed (External) is important because any distance programme planned should take into account the age of its students. For as Verduin and Clark (1991:5) say, '*successful study at a distance requires certain traits that are more typical of adult than pre-adult learners.'* Also INSET programmes are meant to

address specific teacher and school needs so, B.Ed (External) needs to take this factor into careful consideration while designing the curricula.

4.5.2 Viability of Distance Education

Belief in the viability of distance education for purposes of training teachers in general and for INSET in particular is important for the growth of any distance education teacher education programmes. Like in any other business, the providers must be convinced of this viability for them to be willing to invest in it. Customers must be convinced that the goods or services on offer are worthwhile and only then can they be willing to spend time and money on them. For example, today's university student wants university programmes that are convenient in terms of what is offered and how the programmes are offered (Bates 2000:10, Epper 2001:3).

All respondents in the study were therefore asked to indicate whether they believe DE is a viable option for meeting education needs in the country and to indicate which courses could be run using the same. In addition, policy officials were in particular asked to explain why in their opinion they believe DE is viable.

According to the literature reviewed in chapters two and three, the following are some of the reasons for taking distance education as viable:

- Distance education can be used to meet the growing demand for education (Perraton 2000:3, Peters 1996:42, and Saint 1992:xi,)
- Distance education can be used to address issues of equal access because of its potential to reach the disadvantaged (De Wolf 1994:1558, Holmberg 1986:30, Holmberg 1995b:13, Rumble 1992:19)
- The typical university student has changed and now includes a lot of working adults whose needs can no longer be met by traditional type university programmes. So distance education can be used to meet these changing needs (Bates 2000:10, Berge 2001a:6, Epper 2001:3, Peters 1994:28, Robinson 1996:6,)
- Distance education has and can be used to meet urgent professional needs and has greatly been used for the training of teachers (Brande 1994:54, Perraton 1993a).
- A number of authors have argued that distance education is a more cost efficient alternative than conventional education and is therefore an attractive option in the face of dwindling and/or scarce resources (Bates 2000:128, Berge 2001a:9, Orivel 1994:1567, Perraton 2000:126-127)

- Advances in technology have in the past promoted the growth of distance education and today with the enormous capacity of ICT distance education has even greater potentials (Garrison 1989:52, 1996:17).

It was therefore critical to establish, first of all, whether there is general belief in the viability of distance education in Uganda and secondly if so why.

4.5.3 Practical demands in Teacher Education

Teaching is a practical task hence teacher education must take this into account when preparing teachers regardless of whether this is done pre-service or in-service, by distance or by any other mode. Practical work sometimes known as teaching practice or school practice is therefore taken as core in teacher education (Ben-Peretz 1994:5993, Dove 1986:251) and that it can be provided or run using variety of strategies (Furlong *et al.* 2000:2). In addition, there may be subjects that teachers must teach but which require practical work in the form of experiments, projects, and demonstrations however, in a distance education setting, this can be a challenge.

In Uganda, the question of practical work in distance education teacher education programmes is an issue that requires close examination. A number of questions should hence be considered in this regard. For example, how best can teaching practice be catered for and how can subjects that demand practical work be catered for in a distance education setting?

4.5.4 Factors impacting Distance Education

Although distance education is growing in many countries, there are still a number of factors that impact its growth ultimately determining how effectively it is used in any country. For it to grow in Uganda, especially in teacher education, it is vital to identify what some of these factors are and only then can effective plans be made. Some of these factors are:

- Attitudes about the efficacy of distance education
- Technology chosen for use in the programmes (Moore 1996:25, Verduin and Clark 1991:124).
- Management structures and systems of the programmes (Aguti 1996:84, 88; Keegan 1996:120)
- Finance and the cost of the programmes (Makau April 2001:21, Rumble 2001b:5).

- Success of other distance education programmes and dropouts in these programmes. Success or failure of other distance education programmes is likely to affect how other forthcoming programmes are viewed or the level of confidence and support these programmes will enjoy (Paul 1990:79, Perraton 2000:12).
- Policy on education and on distance education in particular. Along with this is the political will or support that distance education enjoys (Bates' 2000:18, 2001:142).
- Distance between the student and the institution. As Keegan says, this distance needs to be bridged and so this would definitely have an impact on how distance education is run and organized (Keegan 1996).

4.5.5 Strengths of Distance Education Teacher Education programmes

In chapter two and three the strengths of distance education in general and distance education teacher education programmes in particular were identified and these have to do with management of distance education, student support services, study materials developed and provided in these programmes, and assessment and examinations. Some of the specific strengths identified are briefly discussed here.

Distance education has been used to open up access and deal with inequalities. In teacher education, it (DE) has been used to provide avenues for upgrading of teachers, training the untrained teachers, providing avenues for retraining of teachers when there are changes in the school curricula and for training headteachers, (De Wolf 1994:1558, Holmberg 1986:30, Holmberg 1995b:13, Rumble 1992:19).

The typical university student is no longer the 19 – 22 year old. More and more working adults are returning to school and distance education has been used to provide education for this group of learners (Berge 2001a: 6, Peters 1994:28, Robinson 1996:6). Distance education has therefore provided avenues for adult teachers to return to school without leaving their jobs. Schools do not stand to lose teachers while they are training.

Although only a few cost analysis studies have been done, there are indications that distance education has been more cost efficient than the conventional full time courses (Bates 2000:128, Berge 2001b: 19, Orivel 1994:1572, Robinson 1996:20-27, Rumble 2001b:5). Perraton (2000:126 -127) presents some examples with indicative comparative costs. And according to these studies distance education was cheaper in the case of Junior Secondary Education in Malawi and Zambia; India National Open School; and in the Mexico Telesecundaria.

Since the distance learner studies most of the time by himself/herself, and also because of the flexibility that it offers, learners can take charge of their own learning (Moore 1996:29, Peters 1994:227, 1996:46,Verduin and Clark 1991:4-5).

For distance education to thrive, there must be institutional involvement and because of division of labour that distance education demands, there are normally high levels of planning and organisation (Peters 1994:118).

4.5.6 Weaknesses of Distance Education Teacher Education programmes

Inspite of the successes of distance education, a number of weaknesses have been identified. Distance education has been accused of:

- High dropout rates and low completion rates inspite of high enrolment rates (Holmberg 2001:73, Keegan and Rumble 1982:228, Paul 1990:79, Perraton 2000:12).
- It does not effectively promote deeper learning and the acquisition of critical thinking skills but is instead excellent for the distribution of information and delivery of facts, (Bates 1994:1577, Garrison 1996:12, Henri and Kaye 1993:27 -28, Holmberg 1993:331, Paul 1990:85, Perraton 2000:12).
- Not really promoting open access as claimed. Instead, there are restrictions as a result of entry requirements, fees levied, access to study materials and technology used; and as Henri and Kaye (1993:27) say, this implies that distance education programmes also shut out the very people the programmes were meant to reach.

These weaknesses may be as a result of the management of the programmes and the manner in which services are provided to students.

4.5.7 Teacher competencies

Teaching demands a combination of knowledge and skills and according to Robinson and Latchem (2003a:10) this includes knowledge and skills in ;

> …academic subjects, school curricula, pedagogy, and child development, communication, classroom management, creation and use of learning resources, assessment of learning and monitoring of individual progress.

It is therefore important that secondary school teachers in Uganda have this knowledge and abilities. Also, in Uganda, the teacher's role is expected to be '…*guide each child/learner…in order to develop the child/learner in body, soul, character and personality* (Ssekamwa 2001:82). To do this, teachers need a number of competencies

or '…*abilities to perform certain functions at standards of efficiency'* (Fraser 2001:55). However, there is no comprehensive description of what these competencies are although Obwoya Kinyera, Auma-Okumu, and others (2002) present a profile for the Ugandan primary school teacher. In this profile, they argue that a teacher should be able to function as:

- an instructor, who can prepare to teach, teach, assess the teaching and learning process, provide feedback to the learners and evaluate the lessons;
- a curriculum implementer who is able to assess the learners' needs, interpret, adapt and implement the curriculum;
- a caretaker who will help the children grow and develop;
- a counselor who can help children develop ;
- an administrator and manager; and
- an entrepreneur

(Obwoya Kinyera, Auma-Okumu, *et al.* 2002:14).

4.5.8 Information Communication Technologies for Distance Education Teacher Education programmes

Distance education has been closely associated with information communication technology right from its beginnings and as Garrison (1989:52) says *'the growth of distance education during each of these stages of development was made possible through the availability of new communication technology'.* In fact, the growth of distance education and the form it has taken and takes today has a lot to do with the dominant technology of the time. However, for ICTs to be successfully integrated there are a number of prerequisites that are identified and these are:

- Institutional support. This includes willingness and commitment to utilizing ICTs, supportive policies, and organizational structures.
- Adequate financial investment and support for the introduction and maintenance of ICTs.
- Availability of technical staff to maintain and support the technology
- Training of both staff and students in the use of technology
- Access to the technology. Both staff and students should have access to technology before it can be effectively utilized.

As Uganda seeks to enrich its distance education programmes through integration of technology, it is important to identify which technology is accessible to students and staff and to determine what can therefore be used in the teacher education programmes.

Also there are different strategies that can be adopted to ensure access (Perraton and Creed 2001:13) and these also need to be identified and exploited.

4.6 POPULATION AND SAMPLE

4.6.1 Introduction

According to Patton (2002:244),

> **There are no rules for sample size in qualitative inquiry.** Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources.

In determining the sample used in this study therefore, the choice of the respondents was based on their importance to the study. The following categories of respondents were selected on the basis of their importance as discussed later in this section. These included:

- Former and current students of B.Ed (External)
- Current students of B.Sc (External)
- Prospective students of B.Ed (External).
- Tutors, writers, and managers of B.Ed (External)
- Officials from Ministry of Education and Sports particularly Teacher Education, Higher Education and Secondary Education Departments.
- District Education Officers and District Inspectors of Schools from select districts
- Directors/Principals of select Teachers' Colleges
- Select Deans/Directors, Registrars from Makerere University
- Registrar of Kyambogo University.

These respondents were grouped into five categories of former, and current students, B.Sc (External) students, prospective students, tutors and managers of B.Ed (External) and policy officials. For each of these categories, a different instrument was designed.

4.6.2 Sampling Procedure

This study employed a combination of sampling procedures. Random sampling was not entirely possible since the researcher did not have a complete list of all the populations in the different districts. A combination of random and non-random sampling techniques were therefore used, and this according to Johnson (2002:113) can lead to more focused results. Also, according to Patton (2002) purposive sampling can be used to ensure that 'information-rich cases' are included in the sample. Ritchie (2003:81), concurs with this

when she says that purposive sampling can be used to achieve diversity in the sample and to ensure aims of the study are achieved.

National Teachers' Colleges (NTCs) are particularly important in teacher education in Uganda because this is where secondary school teachers in the country are trained. See also section 3.5.4d and table 3.3 for more information on the NTCs. The input of such colleges was as such viewed to be critical. The choice of the districts was therefore purposive, depending on whether there was a National Teachers' College in the district or not. In addition to ensure that the different regions in the country were represented in the study, one NTC was chosen from each region. Ultimately the following NTCs were sampled:

- NTC Nagongera, Tororo District to represent the Eastern Region
- NTC Kakoba, Mbarara District to represent the Western Region
- NTC Masindi, Masindi District to represent the Northern Region. As mentioned in section 1.7 and discussed further in section 8.5 because of insecurity in the North of the country, it was not possible to visit NTC Ngetta, Lira which was initially sampled. NTC Masindi was then identified as the nearest yet posing no security threats.
- NTC Nkozi, Masaka District to represent the Central Region

No NTC was sampled from the Southern Region because of funding limitations. However, since majority of the students on the Bachelor of Education (External) come from Kampala, Entebbe, Wakiso and Mpigi, these districts were also included in the sample. Soroti district was also included in the study because of the number of the B.Ed (External) students in it and also because it is close to Lira district which was eliminated because of insecurity. Having selected the districts, it followed that the District Education Officials and District Inspectors of Schools therefore became part of the sample of policy makers to be reached. Also, the Directors of these NTCs were included in the sample.

At each district, schools within the radius of 5 km were selected for ease of access and all the former and current students of the B.Ed (External) in these schools were then sampled. Since no mapping of students had been done prior to visiting the districts, this was done on visiting the districts. In addition, when the current students were at the University for face-to-face activities, the researcher addressed the students explaining the study and its purpose. Volunteer participants were then invited to participate in the study.

The same strategy was used when selecting prospective students. The B.Ed (External) admits teachers who hold a Diploma in Education. Since the researcher did not have the posting details of all such teachers in the country, its was difficult to identify and reach such teachers. Final year teacher trainees at the NTCs were instead sampled. At each of the NTCs visited, the researcher was given opportunity to address the final year students explaining the purpose of the study; the students were then invited to volunteer to participate in the study.

Johnson (2002:113) however points out that volunteer samples may imply bias because such samples may not necessarily represent the views of the population. To minimise this possible effect, the districts of origin and the sex of the volunteers was taken into account so as to ensure that the diversity of the students was reflected in the sample.

Ultimately, using this combination of sampling strategies, the sample totalled 305 with 185 students, 49 prospective students, 36 tutors and managers, and 35 policy makers.

4.6.3 Sample representativeness and generalisability

A sample can be said to be representative if it is similar to the population; that is, it contains the aggregate characteristics of the population. This is important if the results of the study are to be generalised to the rest of the population (Babbie 1992:197, Johnson 2002:107, Yegidis and Weinbach 2002:181). However, it should also be remembered that it is impossible to achieve perfect representativeness and as Yegidis and Weinbach (2002:181) conclude , it is not always necessary either.

This study sample was believed to be representative of the population for largely the following reasons:

- Students and policy makers reached were drawn from the different regions of the country. This therefore reduced ethnic bias.
- Age range of the sample is also representative of the age ranges of the population. For example, B.Ed (External) admits working adults of varying ages including those who will have just qualified (about 24 years) and those nearly retiring (55 years).
- The sample included major stakeholders of the B.Ed programme i.e. managers and tutors, prospective students, former students, current students, Ministry of Education and Sports staff, and district education officials.

- The overall total of the sample is relatively large (total of 305), so the findings are not a result of views of a small sample which would have heightened the problem of bias.

Although there are certain elements of this study that are generalisable to all distance education teacher education programmes, there are some elements that may be only generalisable to only Makerere University's B.Ed (External). This issue is discussed further in section 8.3 and 8.5.

4.6.4 Education policy officials

a) Ministry of education officials involved in Teacher Education and higher education

These are people who are very instrumental in policy and decision-making with regard to teacher education. They also provide oversight to teacher education in the country and are very instrumental in supporting any efforts at seeking external funding for national projects. It was therefore imperative to gather their views regarding teacher education by distance education. Involving them could also ensure an element of ownership should the proposed model be implemented. Assistant Commissioners of Higher Education, Secondary Education and Teacher Education were sampled.

b) Principals, and Directors of Teachers Colleges

These are heads of the training colleges and they are involved in the day-to-day running of the colleges. Their input in many ways always determines the life and direction of teacher training in any college. Yes, there is a national curriculum to be followed but the implementation of the curriculum often depends on the head of the training college. Also, distance education thrives on collaboration and in nearly all the cases of current DE teacher education programmes, teachers' colleges are very much involved. These heads therefore already have some knowledge and experience of what it means to run and manage distance education programmes. Their insights were therefore deemed vital for the design of any distance education teacher education programme.

c) District Education Officers and District Inspectors of Schools

Uganda has decentralised the management of many social services including education. District Education Officers and District Inspectors of Schools are therefore particularly key in the implementation and policy making at district level. Also, since districts are the final 'consumers' of the teacher education graduates, it was important that they are consulted on how this training should be organised. Besides, DE programmes depend

on the support of the districts for the release and support of teachers during the training. These district managers are therefore important partners. To ensure that views were collected from most parts of the country, officials were randomly selected from 6 different districts in the country.

d) Directors/Deans and Registrars

The B.Ed (External) of Makerere University is being run on collaborative basis involving among other University departments the School of Education and the Institute of Adult and Continuing Education (IACE). Deans and Directors are Senators and are critical in policy making and in the day-to-day management of the programme. So their views were critical because of the previous experience with the programme and in regard to what they see as the future of the programme. And with regard to the guidelines being proposed for a new model for the provision of B.Ed, again like the Ministry of Education and Sports officials, involving these officials in the study will increase possibilities of ownership of the proposals.

4.6.5 Former and current students of B.Ed (External)

Without students there can be no education programmes. The world trend today is to involve consumers of any product as much as possible. Also marketability of any education programme will to a large extent depend on the students or prospective students. If students do not approve of what they are being given, they could vote 'with their feet' thereby leaving the programme.

Former and current B.Ed (External) students have experienced a lot and so can give insights into what elements of the present model have been appropriate and what have not been. They can also give information of what else could be included in the design to make learning better.

4.6.6 Current B.Sc (External) students

This group of students was not initially sampled but in the course of the study, a decision was taken to include them so as to more fully understand the experience of the science students. Also, since many of the B.Sc (External) students are teachers, their input was deemed vital in understanding what they see as necessary in the training of science teachers. Besides as distance education students and as a result of their interaction with B.Ed (External) students, it was assumed they would be able to give feedback on what they see as the strengths and weaknesses of the B.Ed (External) programme.

Taking a decision to include other respondents in a study after it has begun is in agreement with what Patton (2002:240) says. For, according to him, other samples could emerge during the study and such samples can therefore be included.

4.6.7 Prospective students of B.Ed (External)

The B.Ed (External) admits teachers with diplomas or equivalent in education. However because of the challenge of reaching practicing teachers the sample of prospective students instead included final year students of National Teachers' colleges (NTCs) studying for various Diploma courses in Education. As already mentioned in section 4.6.3 it is important to involve customers in determining what products they would want. The future of B.Ed (External) to some extent depends on what tomorrow's market thinks of it. To take into account such desires, the prospective students were sampled to give their views on what they see in the current programme and what they think could be done to make this programme better.

4.6.8 B.Ed (External) staff

Since this study was focusing on distance education INSET for secondary school teachers in Uganda and since B.Ed (External) is one of the programmes providing INSET for secondary school teachers, the staff of the programme (which includes tutors, writers, reviewers, managers and administrators) is a vital category. Some of the staff are involved full time with the programme while others are participating in part-time capacities. Also, the staff is not only drawn from Makerere University but also from other institutions as well,especially from Kyambogo University.

Without staff representing different categories, no programme can be run and the growth of any programme is hugely dependant on the participation of its staff. It was therefore critical to establish from the staff the views and opinions regarding the current model of presenting B.Ed (External) and to identify what proposals they have with regard to improvements that could be made and how best ICT can be integrated in the programme.

As mentioned earlier, a total of 305 respondents were reached as shown in table 5.2 with 185 students, 49 prospective students, 36 tutors and managers, and 35 policy makers.

4.7 DATA COLLECTION PROCEDURES

To achieve objectives set out in this research a number of research instruments were used. Each of the instruments designed was used to gather both qualitative and quantitative data. Also to ensure proper administration and maximise participation of the respondent, some procedures were followed. The forthcoming sub sections now discuss all these issues.

4.7.1 Literature review

The first part of this study was concerned with examining the different theories of distance education and in examining teacher education in general and teacher education by distance education in particular. This was important for it helped lay a strong theoretical basis for the study. Also, the recommendations made in section 8.3 as a framework for INSET for secondary schools in Uganda is partly based on this theoretical basis.

4.7.2 Questionnaires

Different types of questionnaires were designed for the different categories of people sampled. See sections 4.6.3 – 4.6.8 for details on the sample. This was so as to establish both qualitative and quantitative data on:

- What is perceived as the potential of distance education in Uganda and what courses could be offered using the same.
- Strengths and weaknesses of the current Teacher Education DE programmes in the country.
- What needs to be done to improve the design of these programmes.
- Media that have been used in these programmes and how effective these media have been.
- Media that is accessible to these programmes and how this can be used in teacher education.
- Factors likely to impact teacher education by DE in the country and how these can be dealt with in design of programmes.

The questionnaires contained both close-ended and open-ended questions. The open-ended questions were used a lot so as to obtain detailed understanding of the phenomena being explored. This type of questions also gave the respondents the freedom to freely express themselves. On the other hand, close-ended questions were

used so as to give respondents opportunity to choose from alternatives provided in the instruments.

All questionnaires were self-administered. However, all tutors, writers, reviewers, administrators and managers were individually approached, the questionnaires left with them and these were then retrieved later. The same strategy was used with some students but for others the questionnaires were administered in groups. This assured high return rate (Babbie 1992:263, Yegidis and Weinbach 2002:214).

Questionnaires were used because of their appeal:

- Convenient to administer. The researcher did not always have to be physically present to administer each questionnaire.
- Respondents have the perception of anonymity and so have the freedom to provide information confident of their anonymity. It was therefore possible to get information that would perhaps be difficult to get if the respondents were not confident of this anonymity.
- Supervision of administration of questionnaires increases rate of returns

(Babbie 1992:263, Yegidis and Weinbach 2002:214).
See appendices II - V for the different questionnaires that were used.

4.7.3 Structured interview schedule

Interviews formed one of the major components of the study and were aimed at gathering both qualitative and quantitative data. This was for officials of Ministry of Education and Sports headquarters - Teacher Education, Secondary Education and Higher Education Departments. These three departments in the Ministry were selected because of their direct relevance in secondary education. In addition, structured interviews were also held with Education Officials at the Districts, Principals/Directors of teachers colleges and with key persons at Makerere University and at Kyambogo University.

A structured interview schedule was utilised because it allows for a clear statement of what needs to be explored and it was also possible to state all questions that were asked. In so doing, it was possible to ensure that the interviews were highly focused eliminating unnecessary digressions that are often likely in an interview (Babbie 1992:263, Legard *et al.* 2003:168, Yegidis and Weinbach 2002:166). Also, interviews

were used as part of triangulation in the data collection (Houser 1998:243, Lewis *et al.* 2003:275, Patton 2002:343 – 346).

See appendix VI for the interview schedule used.

4.7.4 Conditions under which the instruments were administered

All the questionnaires were self-administered. However, a letter explaining the purpose of the study accompanied each questionnaire (see appendices II - V). The participants were also assured that their responses would be treated with confidentiality. For as Johnson (2002:98) says, it is vital *'… to let the respondents know who is conducting the research, the purpose of the survey, how they were selected, and how the information will be used.'* Patton (2002:343) concurs with this because, to him too, informed consent is important before any participant is drawn into the research.

For the interviews, to reach each interviewee, appointments were made and before commencing the interview, the purpose of the interview was explained, and permission sought to record the interview. In so doing, the respondents were put at ease and willingness to participate in the study established.

4.8 ENSURING HIGH RELIABILITY AND VALIDITY OF THE INSTRUMENTS

Reliability reflects the level of consistence in the data while validity expresses the degree to which a specific method measures what it was supposed to measure; and both these are very critical in determining the quality of research (Borg 1987:117, Houser 1998:238, 242; Yegidis and Weinbach 2002:206, 209). To achieve this in the study, the following were done:

- Instruments were pilot tested and the lessons from the test incorporated. This issue is discussed section 4.4.2.
- Experts reviewed the instruments. See section 4.4.1
- As already discussed in section 4.7.4, conditions under which the instruments were administered were by and large similar
- Categories used for coding of results were determined after examining all the responses received and determining the trends that emerged. This will be discussed in more detail in section 4.9.2.
- Triangulation. This is the process of utilising a variety of methods and researchers to gather data; and different theories to interpret the data. This process has the effect of strengthening the study, improving, clarifying and validating findings (Lewis *et al.*

2003:275, Patton 2002:247). In this study, literature review, questionnaires for different categories and interview schedules were used. Items included were derived from literature reviewed while the questionnaires and the interview schedule covered the main issues the study was concerned with and as can be seen in the different instruments (appendices II - VI), and in the data analysis given in chapters 5 – 7, similar questions were asked. This enabled the researcher to compare responses given on the same issue or question.

4.9 DATA ANALYSIS

Most of the data collected was qualitative so, it was coded, and grouped according to different subheadings. The data was analysed with the help of the Department of Statistics in the University of Pretoria using the statistical package SAS Version 8. Percentages and frequency diagrams were used to indicate the distributions of the different views expressed. This enabled the researcher establish what the respondents said regarding the current models of distance education. In addition the Chi-Square test was applied to some of the data so as to establish levels of significance.

The information so gathered and analysed was then used to draft a Framework for High Quality INSET Distance Education for Secondary School Teachers in Uganda.

4.9.1 Transcribing data from interviews

As mentioned earlier in section 4.7.3 interviews were a major source of data in this study. So to have a record of the interviews, a mini cassette recorder was used and later, each interview was transcribed and the responses entered into the structured interview schedules. This data was then coded and grouped according to the different sub headings. The researcher did all this although the themes identified were discussed with the supervisors and with the research support team from the Department of Statistics, University of Pretoria.

The next section focuses on the grouping of all the data collected from the interview schedules and from the questionnaires.

4.9.2 Grouping of the qualitative data from questionnaires and interview schedule

The data that was ultimately collected from the study was of two categories quantitative and qualitative data. To analyse the qualitative data that was gathered from the open-ended questions and from the interview schedule, implied engaging in some degree of

inductive analysis (Patton 2002:55, 453, Spencer *et al.* 2003:202). To reduce the data thereby deriving meaningful themes or patterns from the huge data gathered, it was necessary to group the data.

All the responses to all the open-ended questions were copied out and a research assistant typed these out according to the different categories of the respondents. The researcher then studied these to identify the emerging themes and issues. The different responses were grouped according to these themes which ultimately became the categories that were used in the coding. Each of the categories was assigned a number and the numbers then used for coding purposes.

This grouping may have been informed by the reading and analysis of literature but by and large, the groups were arrived at as a result of my understanding of what was said. I did not go to the field with predetermined themes for analysis of the data.

It should also be noted that these groups of data are not mutually exclusive
But are very much interrelated and should therefore be seen thus. The different summaries of these categories are presented in appendix VII.

4.10 CONCLUSION

This chapter has outlined the methodology that was used in this study. The data gathered was largely qualitative although some quantitative data was also gathered. Three instruments – literature review, questionnaires and interview schedule – were used to gather the data. Altogether, a total of 305 respondents were involved and these included various stakeholders of the B.Ed (External) programme.

The key concerns of the study that the interviews and questionnaires sought to deal with have also been raised once again and in the next chapters, the findings of the study will be presented.

CHAPTER FIVE

VIABILITY OF DISTANCE EDUCATION AND FACTORS THAT IMPACT IT IN UGANDA

5.1 INTRODUCTION

Distance education has been used in various countries and programmes as already shown in chapters two and three. It has also been used in Uganda especially for teacher education. One of the purposes of this study was to establish what the various teacher education stakeholders think about the viability of distance education in meeting the educational needs of the country and what factors impact distance education in the country. This chapter therefore presents the findings of the study with regard to viability of distance education and the factors that impact it in Uganda. Although this study focused on In-Service Distance Education For The Education Of Secondary School Teachers In Uganda, the question of viability of distance education and the factors impacting it were with reference to distance education in general. Some of the teacher education programmes may have been used to illustrate the issues raised but the discussion is in reference to distance education in general.

However, before discussing these, section 5.2 presents the characteristics of the sample. The other sections are as follows:

- Section 5.3 which focuses on the viability of distance education
- Section 5.4 that examines the demands of practical work in teacher education
- Section 5.5 then discusses the factors that impact distance education
- Section 5.6 focuses on government policy on distance education; and the chapter is then summarised in Section 5.7

Appendix VII gives the research questions, the categories that were used to group and code the qualitative data and the different sources of the data.

5.2 SAMPLE CHARACTERISTICS

The sampling procedures and selected sample are discussed in chapter 4 section 4.6 of this report. The importance of the sampling conducted to the investigation was also highlighted in this section. In the next sub sections, key characteristics of this sample are given.

If a programme is to be designed in a manner that will satisfy the learners needs, it is important to understand the characteristics of the learner. Accordingly, the characteristics of particularly the students and prospective students are very important. The same applies to tutors and managers of the B.Ed (External) programme. To involve tutors and managers in a distance education programme, it is always vital to train them in how to deal with the distance learner and so their characteristics are equally important.

All information on the sample characteristics was obtained from answers to questions in Section A of each of the questionnaires and of the interview schedule.

5.2.1 Age ranges

Distance education has been used largely for adults and this is more true in INSET since all those trained under INSET are always teachers already in service. Students, prospective students, and tutors and managers of the B.Ed (External) programme were asked to indicate their age. According to the findings, the youngest in the sample was 22 years old while the oldest was 65 years old.

The specific age distribution according to categories is discussed and then illustrated in table 5.1

a) Age of students

The youngest in this category was 22 years old while the oldest was 50 years old but nearly 60% of the students were below 37 years old. Retirement age in the teaching service is 55 years which means majority of students joining the programme have at least another 18 years of service ahead before retirement. Since knowledge is not static, it is therefore vital that this age group is given INSET if they are to continue serving the school system in a productive manner since with time, knowledge acquired by teachers during training is likely to become obsolete (Bagwandeen and Louw 1993:10 Iredale 1996:13).

b) Age of prospective students

The youngest amongst the prospective students was 20 years old while the oldest in the group was 47 years old. In this category, a much higher percentage (88%) than the students was below the age of 37 years therefore like those on the programme majority of these teachers still have at least 18 more years of service before retirement and would therefore require continuous professional growth.

c) Age of tutors and managers

Although the youngest in this group was 24 years old and the oldest was 65 years old. However, nearly 48 % of the category were above 40 years old. The retirement age in Makerere University is 65 years and so 48% of these tutors and managers still have at least 25 years of service if they remain in University service till retirement. This has two major implications. Firstly, if these tutors are to be trained to serve distance learners, the training methodologies must incorporate the psychology of the adult learner. Secondly, if there are to be any changes in the provision of INSET, this must be carefully introduced because change for adults is likely to be much more threatening and could be resisted.

Table 5.1 illustrates the age distribution of the students (including the former students), the prospective students, and tutor and managers of the B.Ed (External) programme. The means, median, mode and quartile distributions are highlighted in the table.

Table 5.1: Age distribution of respondents

Category	Min	1st Quartile	Median	3rd Quartile	4th Quartile	Mean	Mode
Students	22	30	35	40	50	35	32
Prospective students	20	22	23	25.5	47	26.04	22
Tutors, Managers & Administrators	24	35	40	48	65	41.85	40

5.2.2 Gender Distribution

The respondents were also asked to indicate their gender. Just as with the age of students and staff in any programme, it was deemed important to establish the different gender of the study participants because when planning student support services, it may be necessary to take into account the gender of the students. For example, if accommodation is being arranged for students during face-to-face, gender may be an issue.

Majority of the tutors and managers of the B.Ed (External) programme are male. This is a reflection of gender distribution at universities where the majority of the academic staff is male. For example in the 1999/2000 academic year, Makerere University had a total of 999 academic staff but only 202 (20%) of these were female and the rest - 798 (80%) male (Epelu-Opio 2000:7). This same scenario is reflected

in the gender distribution of the officials at the Ministry of Education and at the District offices. One of the reasons for this, I believe, is the low number of females enrolling in higher and tertiary education in Uganda and as a result only a few eventually rise up to senior positions in the universities and in the Ministry of Education and Sports. Table 5.2 gives the gender distribution of all the respondents.

Table 5.2: Gender distribution of respondents

Respondents	Female	Male	Did not indicate	TOTALS
Students	56 (31.3%)	123 (68.7%)	6	185
Prospective students	20 (44.4%)	25 (55.6%)	4	49
Tutors & managers	9 (25%)	27 (75%)	0	36
Policy makers	4 (11.4%)	31 (88.6%)	0	35
TOTALS	**89**	**206**	**10**	**305**

5.2.3 Work Places of Respondents

As pointed out earlier in chapter 3 table 3.6, the B.Ed (External) programme has a target group that includes educators working in various institutions. So, in this study, all the participants were asked to indicate their work places. Here work place does not refer to a specific location but refers to the section/institution – see item 4 in all the questionnaires (appendices II – V) and item 3 in the interview schedule (appendix VI). Particularly for students, this information is vital because the teachers' work has implications on the type of courses that INSET should offer.

a) Work Places of Students

Majority of the students on the programme are either teaching in the primary school or in the secondary school although the majority are teaching in the secondary school. Of those that responded to this question, 31.61% are teaching in primary schools, 55.75% in secondary schools, and a further 3.45% of them in the Primary Teachers' Colleges. (PTCs) while the pre-primary institutions and the education offices have only 1 respondent (0.57%) each. The rest of the students (8.53%) work in a cross section of departments:

- Nursing School
- NGO
- Ceramics
- Business
- Directorate of health Services
- Factory
- Fisheries
- Natural Resource Management
- Research Institute
- Veterinary Department
- Water Works
- Agricultural Research Institute
- Construction Firm
- National Colleges of Commerce (UCC)

This latter category of students are taking the BSc (External) programme which as already discussed in section 4.6.4 was meant largely for teachers but admits any other students wishing to enrol and qualify for this degree.

Table 5.3 gives the frequencies and percentages of those who responded to the question requiring them to indicate their workplaces. From the results received, of those who responded to this question, (9 students did not respond) 26.5% of the prospective students in the sample are working in the primary schools while the bulk 75.5% are student teachers training for a Diploma in Secondary Education.

Table 5.3: Work place distribution of students and prospective students

	Work Place	Students Number	%	Prospective student Number	%
1.	Pre-primary	1	0.57		
2.	Primary	55	31.61	13	26.5
3.	Secondary	97	55.75		
4.	PTCs	6	3.45		
5.	Education Office	1	0.57		
6.	NTC	1	0.57		
7.	Student Teachers	-	-	36	73.5
8.	Others	15	8.53		
9.	Did not respond	9			
	TOTALS	**185**		**49**	

The work place of the students enrolled for the B.Ed (External) programme should have implications on the curriculum of study of the programme because the major purpose of INSET is normally to address the need of the teacher so as to improve the teachers' performance of his/her duties (Bagwandeen 1999:62). In section 6.6.8 how far B.Ed (External) meets the teachers' needs is discussed and it is clear that the programme does not seem to satisfy the needs of the primary school teachers entirely. So, when revisiting the programme, the teachers' work places must be taken into account and the different courses offered should meet the teachers' needs.

b) Work places of tutors, managers and policy makers

Majority of the tutors and managers of the B.Ed (External) programme are from Makerere University (82.86%) while only 14.29% are from Kyambogo University and only one from Kakoba National Teachers' College. This implies that the programme is relying largely on tutors and managers who are already employed in Makerere University.

On the other hand 22.86% of the policy makers were drawn from Makerere University, 20% from the National Teachers' Colleges (NTCs), 20% from the Ministry of Education and Sports (MoES) and the rest (37.14%) were from the districts.

In many dual mode universities, tutors, writers, and managers of the external programmes are often drawn from existing staff of faculties and departments in the university (Robinson and Latchem 2003b:39). This is critical for full integration of the programmes in the university setting. However, where the programme is seen as an extra responsibility, it may suffer greatly. For example, Robinson and Latchem (2003b:39) cite the problems of '*…unmanageable workloads for the few staff involved and marginalization of the programmes in strategic planning and management'.* In the case of Makerere University, the appointment letter (except for staff appointed directly into the Department of Distance Education) does not state that it is mandatory for a staff member from one faculty to teach in the External Degree Programme. This responsibility is therefore seen as 'extra' and the staff paid for every task carried out. This could be the reason for lack of commitment pointed out by the students while raising the weaknesses of the programme (see section 6.6.4c).

5.2.4 Positions of the study participants

The questionnaires (in item 5 appendices II - V) and interview schedule (in item 4 appendix VI) also sought to establish the positions occupied by the study participants. The distribution is now discussed.

a) Students' work positions

Today's university student is most likely to be a working adult with both family and work responsibilities and in addition, they now take on student responsibilities. The responsibilities already held will most probably influence the students' access to resources, how much time he/she will have for study and his/her learning needs. Distance education programmes drawn therefore need to take this into account ensuring that services provided and schedules of programmes take into account the learners other commitments. This is the only way in which the programmes will exploit flexibility that distance education provides (Peters 1996: 45).

In this study, of the students who responded to this question, the majority are classroom teachers (45.51%) and in addition, some of the teachers have other responsibilities and some of these highlighted included:

- Careers and Guidance Teachers
- Chairperson of a Headteachers' Association
- Director of Studies
- In charge Book Store
- Assistant Games Master
- Deputy Headteachers
- Class Teacher

Table 5.4 gives the frequencies and percentages of the students and the different work positions held.

Table 5.4: Students' work positions

Position	f	%
Teacher	81	45.51
Head of Department	36	20.22
Headteacher	33	18.54
Assistant Education officer	6	3.37
Technician/Engineer	5	2.81
Fisheries/Animal husbandry/Vector Control Officer	5	2.81
Deputy Headteacher/ Deputy Principal	4	2.25
Director of Seminary/Manager/Project Director	3	1.69
Inspector of Schools	1	0.56
Education officer	1	0.56
Tutor	1	0.56
Nurse Tutor	1	0.56
Lecturer	1	0.56
Did not indicate	7	
TOTALS	185	100

Apart from the students working in educational institutions and departments, a number of them are working in other departments and institutions (as shown in table 5.3) that are not educational institutions and therefore occupy a variety of positions. This category includes:

- Chief Technician
- Technician
- Water Engineer
- Vector Control officer
- Assistant Fisheries Officer
- Assistant Animal Husbandry Officer
- Manager
- Foreman
- Project Director

b) Work positions of prospective students

Prospective students were drawn from the NTCs and therefore the largest proportion (72.92%) were student teachers while 18.75% are classroom teachers and the rest (8.33%) included a headteacher, an education officer and heads of departments.

c) Work positions of tutors and managers

Tutors and managers of the B.Ed (External) programme who responded to this question included an Associate Professor, Assistant Lecturers, Senior Lecturers,

Lecturers and Teaching Assistants. The majority in this category however consisted of lecturers (58.33%). Table 5.5 gives the frequencies and percentages of those tutors and managers who answered this question.

The positions of the tutors and managers have some bearing on the management of the programme. For example, it is only Deans/Directors, Professors and Associate Professors who are members of Senate that is the highest decision making organ of Makerere University. So if nearly all the tutors and managers of the B.Ed (External) programme are not members of Senate, who then is representing the interests of this programme in Senate?

Table 5.5 Positions of tutors and managers of the B.Ed (External) programme

Position	**f**	**%**
Lecturer	21	58.33
Senior lecturer	6	16.67
Teaching Assistant/Administrative Assistant	4	11.11
Assistant Lecturer	3	8.33
Associate professor	1	2.78
Editor	1	2.78
Professor	0	0
TOTAL	36	100

Also, according to Moore (1996b:24) the direction and extent of the dialogue that will take place between the learners and the teacher will depend on the *'…educational philosophy of the individual or group responsible for the design of the course, by the personalities of teacher and learner…'* So, if majority of the tutors and managers are lecturers and there are only a few Senior Lecturers and Professors, is this affecting the amount and form of dialogue taking place between the B.Ed (External) learners and the tutors?

d) Work positions for policy makers

The policy makers who participated in this research were drawn from Makerere University, Kyambogo University, district offices and from the MoES headquarters. The highest percentage was of education officers and deans/directors of schools/institutes. Table 5.6 gives the distribution of the policy makers according to work positions they hold.

Table 5.6: Distribution of policy makers according to work positions they hold

Position	f	%
Education officers	8	22.86
Dean/Director (former & current)	8	22.86
Registrar & Deputy Registrars	4	11.43
Deputies (Director & Associate Dean)	4	11.43
Assistant Commissioner	3	8.57
Inspector of Schools	3	8.57
Principal & Deputy Principal	2	5.71
Commissioner	1	2.86
Head of Department	1	2.86
Lecturer	1	2.86
TOTAL	**35**	**100**

5.3 VIABILITY OF DISTANCE EDUCATION

5.3.1 Introduction

In chapter two and three the reasons for the growth of distance education in education in general and in teacher education was discussed. This study therefore sought to establish how many of the students, prospective students, tutors and managers of B.Ed (External) and policy makers actually do believe in the viability of distance education to meet educational needs in Uganda. The study also sought to establish what is viewed as factors that impact distance education in the country. The next sub sections will now discuss the findings in relation to this.

Of the respondents that answered this question, the majority said that distance education is a viable option for meeting educational needs in Uganda and table 5.7 gives the frequencies and percentages of those who responded to this question.

Table 5.7: Respondents view about viability of Distance Education

Respondents	YES	NO	Did not indicate
Students	166 (93.79%	11 (6.21%)	8
Prospective students	47 (97.92%)	1 (2.08%)	1
Tutors & managers	33 (94.29%)	2 (5.71%)	1
Policy makers	35 (100%)	NIL	NIL

However, it is worth noting that with the exception of the policy makers who all said distance education is viable, a few from all the other categories did argue that distance education is NOT a viable option. It is perhaps even more intriguing that 6.21% of the students already enrolled on the programme do not have faith in distance education! This raises a number of questions. For example, did these

students have faith in distance education before enrolling and have now been disappointed and lost the faith? Is it perhaps that they did not have the faith in the first place but have only joined the programme because it is available and what is the effect of such attitude to their participation in the programme?

5.3.2 Reasons for viability of Distance Education to meet educational needs in Uganda

In item 28c (appendix VI) of the interview schedule, policy makers were asked to give reasons for believing in the viability of distance education. This question was unfortunately not put to the rest of the study participants.

The policy makers put forward a number of reasons for believing that distance education can be used to meet the education needs of the country. The major reason put forward is that distance education has the potential to increase access to education since it often targets a large number at a time. Also that distance education can particularly be used to reach the many that are disadvantaged and have no access to the internal programmes. In so doing, distance education would also address the increasing demand for education especially in the light of the growing population. This view is in agreement with what other authors (De Wolf 1994:1558, Holmberg 1995:13, 2001:17, Rumble 1992:19, Saint 1999:12) have said as the reason for the growth of distance education.

In view of the growing demand for education in Uganda and particularly the growing enrolment numbers in primary school as a result of Universal Primary Education (UPE) and the expected bulge in secondary school and tertiary education, (Ministry of Education and Sports 1999:11) it is encouraging to note that policy makers believe that distance education can be used to meet the increasing demand for education.

Another reason raised is that distance education can be cheaper than the internal programmes and also that it is one way of maximising the use of existing facilities. A number of authors have written believing that distance education is more cost efficient, though not necessarily more cost effective, than internal programmes. Nevertheless, the initial investment is often high. (Bates 2000:128, Berge 2001b:19, Orivel 1994:1567, Perraton 2000:126-127). So, whereas it is important that policy makers interviewed in this study see the potential of distance education to be more cost efficient, it is important for planners to remember that initial investments are likely to be high and should therefore be factored into every plan for a distance

education programme. Otherwise the challenge being faced by Teacher Development and Management System (TDMS) is likely to be a common problem. TDMS started with a heavy dependence on external funding but is now faced by a challenge of finding alternative funding since the external funding is no longer forthcoming (Makau April 2001:21). A few other reasons were given and these are given in table 5.8 that shows the frequencies and percentages of those who gave the reasons.

Table 5.8: Reasons for viability of Distance Education

Reason for Viability	f	%
DE has potential of increasing access to education	23	65.7
DE can be used to meet increasing demand for education	15	42.8
DE is likely to be cheaper and more cost effective	14	40.0
DE offers more flexible programmes	11	31.4
DE has already proved itself successful both in Uganda and elsewhere	6	17.1
DE capable of catering for changing needs of education	2	5.7

5.3.3 Courses that can be offered by Distance Education

All the respondents who said that distance education is a viable option were asked to indicate courses that in their opinion could be offered by distance education. The views given vary although the general tendency is to say that the science-oriented courses including Medicine, Engineering and to the students and prospective students, also Law should not be offered using distance education. Table 5.9 gives percentages of those who said that the courses can be offered by distance education. This table also includes the p values obtained after the Chi-square test – where $p \leq 0.05$. Any p values equal to or less than 0.05 indicate a statistically significant result while any p values of more that 0.05 indicate a result that is not statistically significant.

However a huge proportion of the tutors and managers and of policy makers (83.33%, 85.71% respectively) believe Law can be offered by distance education as compared to a much lower percentage of students (49.10%) and prospective students (42.86%). When this data was subjected to a Chi-test, a p value of 0.0001 was arrived at an indication that the difference is statistically significant. Tutors, managers, and policy makers are all involved at higher academic and managerial concerns and this may be reason for the difference. Also an examination of the reasons given may explain the difference in opinions. Students and prospective students say that Law is a demanding subject requiring a lot more concentration.

On the other hand, when responding to whether science courses can also be offered by distance education a higher percentage of students (46.11%) and tutors and managers (52.78%) said that distance education could indeed be used for science courses compared to only 32.65% prospective students and the 22.86% policy makers. This difference in opinion is also statistically significant with a Chi-square p value of 0.0194.

The higher percentage recorded from tutors and managers and from the students is probably because the sample included students who are already enrolled on the B.Sc (External) programme and some of the tutors and managers who are involved in both the B.Ed (External) programme and B.Sc (External) programme. These therefore have direct experience of a science programme being offered by distance and would therefore be more open to supporting its continued provision.

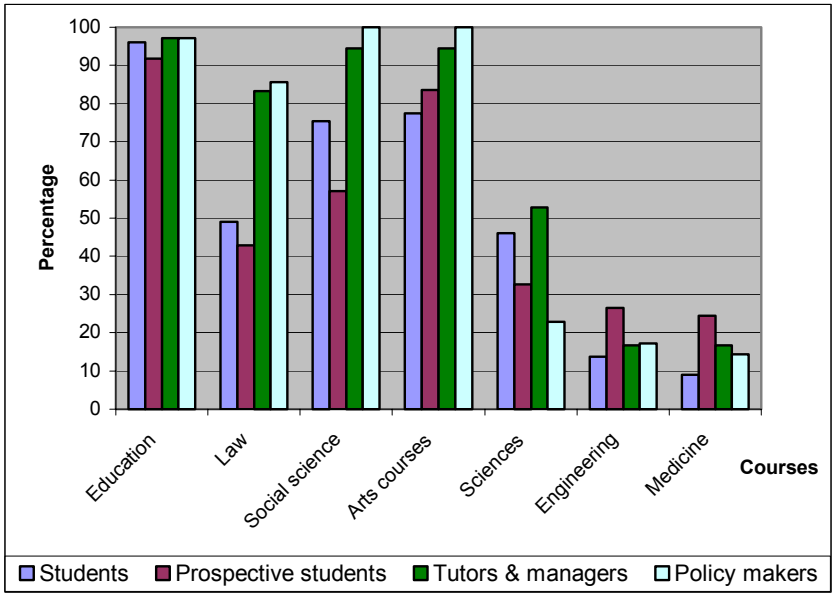
With regard to medicine and engineering, there was general agreement that these courses should not be offered by distance education although according to the chi-square test results, there is a difference of opinions. The difference is statistically significant with regard to medicine but statistically insignificant with regard to engineering (p = 0.2184 for engineering and 0.0378 for medicine). However, the percentages of those supporting these courses are generally low for all the categories of the sample. For example, only 13.77% of the students, 26.53% of the prospective students, 16.67% of the tutors and managers and only 17.14% of the policy makers say engineering could be offered using distance education. On the other hand, medicine had 8.89% of the students, 24.49% of the prospective students, 16.67% of the tutors and managers and only 14.29% of the policy makers.

Table 5.9: Courses that can be offered by Distance Education

Course	Students	Prospective students	Tutors & managers	Policy makers	Chi-Square	Comment (with p≤ 0.05)
	%	%	%	%	p values	Statistical significance
Education	96	91.84	97.22	97.14	0.5446	Not significant
Law	49.1	42.86	83.33	85.71	0.0001	Significant
Social science	75.45	57.14	94.44	100	0.0001	Significant
Arts courses	77.51	83.67	94.44	100	0.0025	Significant
Sciences	46.11	32.65	52.78	22.86	0.0194	Significant
Engineering	13.77	26.53	16.67	17.14	0.2184	Not significant
Medicine	8.98	24.49	16.67	14.29	0.0378	Significant

The statistics shown here can be graphically represented as given in figure in 5.1.

Figure 5.1: Courses that can be offered by Distance Education



Apart from the courses that were listed in the instruments, the respondents also included a number of other courses that could be provided by distance education. However nearly all these were recommended by only one respondent each. The courses identified include:

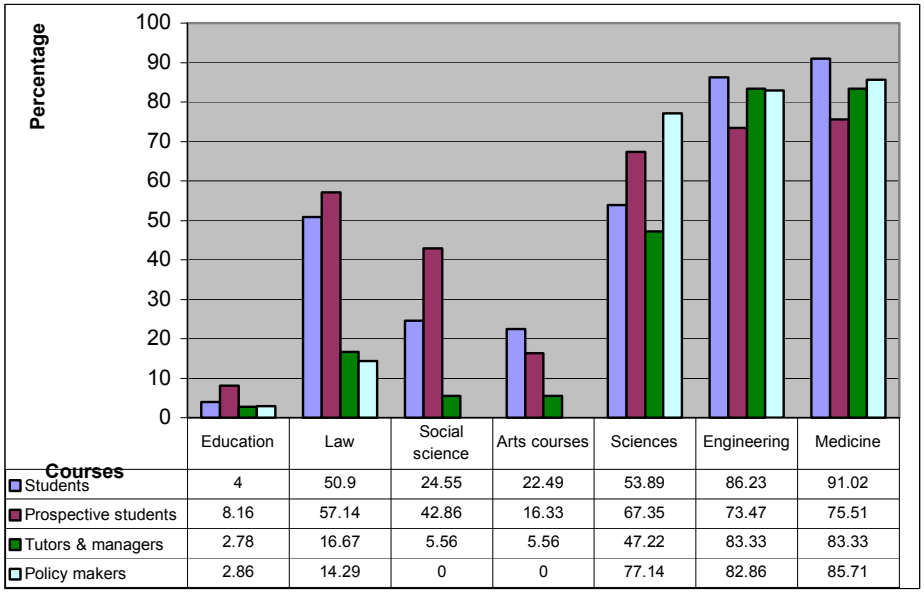
- Administration
- Adult education
- Agriculture
- All fields
- Business
- Commerce
- Community development
- Computer literacy
- Environmental studies
- Extension administration
- Fashion & Modelling
- Fish technology & preservation
- Gender & children's rights
- Health educators' & Tutors' Course
- Journalism
- Mass communication
- Masters & PhD programmes
- Music Dance and Drama
- Public Administration
- Rural development
- Short courses in management
- Surveying

It is interesting to note that although as stated earlier, the general view is that science courses should not be offered using distance education, a number of other courses given include many science courses. This is a reflection that some of the respondents in this study believe in the efficacy of distance education in the provision of science courses. Table 5.9 and figure 5.1 demonstrate this faith because a small proportion of respondents accept that sciences, engineering and medicine can be provided using distance education for as one education officer said, 'any course can be provided by distance education as long as there is demand for it and as long as the courses are well planned'.

5.3.4 Courses that should NOT be offered by Distance Education

All the participants in this study were asked to indicate which course should and which ones should not be offered by distance education and the general consensus was that science courses, engineering and medicine should not be offered. However there was also a high percentage of students and prospective students that said that Law should also not be offered by distance. Figure 5.2 gives courses and the percentages of those who said these courses **should not** be offered using distance education.

Figure 5.2: Courses that should NOT be offered by Distance Education



Courses	Education	Law	Social science	Arts courses	Sciences	Engineering	Medicine
Students	4	50.9	24.55	22.49	53.89	86.23	91.02
Prospective students	8.16	57.14	42.86	16.33	67.35	73.47	75.51
Tutors & managers	2.78	16.67	5.56	5.56	47.22	83.33	83.33
Policy makers	2.86	14.29	0	0	77.14	82.86	85.71

All the respondents were also asked to give reasons as to why they are of the opinion that distance education cannot be used to offer certain courses. A total of 43 students, 14 prospective students, 12 tutors and managers and 20 policy makers responded to this questions and they gave a number of reasons for these views.

Each of the reasons for not offering certain courses by distance education will now be discussed in the next sub-sections.

a) Lack of equipment and other resources

As already mentioned in section 5.3.3 most of the respondents had reservations about the feasibility of using distance education to offer the science-based courses. These types of courses often require specialised equipment, chemicals and other equipment and resources and so of all the responses received, (14.51% by students,

3.51% by prospective students, 16.67% by tutors and managers, and 25.71% by policy makers) were for this very reason. One tutor for example said, 'a lot would need to be done before any of these courses are launched in the department – labs, equipment, tutors, study materials etc.'

b) Need for close interaction and supervision

One of the major challenges in distance education is overcoming isolation since for most of the time, a distance learner studies on his/her own (Amundsen 1996:61-79, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8). This the respondents said, makes it difficult to provide some of these courses. Medicine and engineering, for instance, according to them require:

- Frequent face to face sessions
- On-the-spot supervision of students
- A lot of students/tutor interaction
- Help in understanding specialised language as in the case of Law.

All this would help bridge what Moore (1996b:22) calls transactional distance between the learners and the their tutors and would help reintegrate the teaching/learning acts (Keegan 1996:130) thus enriching learning and making it more meaningful and relevant.

One student, for example, emphasised the need for this interaction by saying, 'science courses including engineering courses and medicine courses that demand a number of practice exercises that should be handled or conducted (practical lessons) in the presence of the teacher to avoid regrets for example burning a lab'. So of all responses received, those that focused on the need for close interaction and supervision were, 21.76% of the students' responses, 19.30% of the prospective students', 33.33% of the tutors and managers', and 37.14% of the policy makers'. Although there seems to be little difference between the four categories, the highest percentage of responses was from the policy makers and with students having the lowest percentage. This might be because the policy makers, tutors and managers have a deeper understanding of what goes into training a doctor or engineer and so have higher reservations.

c) Practical work and hands-on experience

Practical work and hands-on experience is inevitable in medicine, engineering and other science based courses and it is for this reason that some of the respondents

had reservations about the viability of distance education for the provision of these courses. According to them, this hands-on experience can be acquired in laboratories, workshops and in the case of medicine hospitals. This, they said, may be difficult to provide for in distance education. One tutor expressed a fear that 'engineers produced by distance may be half baked for lack of on-the job experience'. This need for practical work and hands-on experience drew the highest proportion of responses – 35.23% of the students' responses, 35.09% of the prospective students', 55.56% of the tutors and managers', and 77.14% of the policy makers'. Practical work is very closely related to close interaction and supervision so, as was the case with the latter, again here the tutors and policy makers registered higher responses. Section 5.4 focuses on practical demands in teacher education.

Distance education has been accused of being more efficient in the distribution of information and delivery of facts, but that it does not effectively promote deeper learning and the acquisition of critical thinking skills (Bates 1994:1577, Henri and Kaye 1993:27-28, Holmberg 1993:331, Paul 1990:85, Perraton 2000:12). These seem to be the criticisms being raised here as well.

d) Need for instructional materials

Medicine, Engineering and Law require a lot of specialised literature that is most times very costly. According to a small proportion of responses received, (3.24% of the students' responses, 2.78 % of the tutors and managers', and 5.71% of the policy makers'), this is a challenge if distance education is to be used to run these courses. In Makerere University, students have to purchase a lot of the required textbooks, so if Medicine/Engineering/Law were to be offered by distance education, students would probably not afford the expensive books. One tutor for example said, these courses 'require a lot of instructional materials which may be difficult for students to access as individuals'.

e) Cost of the programmes

Distance education is believed to be cheaper in the long run than the internal programmes, however in the case of science based courses, the costs could be higher because of the cost of specialised equipment and other teaching/learning materials like practical kits, chemicals and cost of equipment for laboratories and workshops (Berge 2001a:9, Perraton 2000:118, Rumble 2001b:3). This is the fear expressed by some of the respondents (5.18% of the responses by students, 2.78 %

by tutors and managers, and 5.71% by policy makers) so they do not recommend the running of courses like Medicine, and Engineering. One tutor for instance said, 'needs practical kits and specialised equipment which are expensive'.

f) Demand a lot of concentration

One other reason given for not offering courses like Law and Medicine by distance education is that these two courses demand a lot of concentration. From the responses received (14.51% of those by students, 21.05% of prospective students', 2.78 % of tutors and managers', and 5.71% of the policy makers') these courses should not be offered for this reason.

This thought is actually troubling because, although Verduin and Clark (1991:125) say that different subjects require different competencies, the implication here seems to be that courses currently being offered by distance education do not require or demand a lot of concentration! This argument incriminates the Social Sciences as being inferior to Medicine, Engineering and Law. One student for example said, 'they are the type that require one to wholly give in their time and not just having short sessions like it's the case in current DE programmes'. It is not very clear what this student means by 'short sessions' but it could refer to the short face to face sessions often organised in most distance education programmes in Uganda. If this interpretation is correct then the concept of distance education is certainly lop-sided. Face-to-face sessions are not the sum total of distance education but should rather be taken as one component of the teaching/learning package. True most distance learners are working adults with other responsibilities but this does not imply that what they study does not demand concentration. Concentration is not a factor of time. It is not the amount of time spent studying that implies concentration but how the study time is spent. A student can, for example, spend many hours 'studying' but with minimal concentration and therefore limited achievement.

g) Sensitivity of subject

Related to the need for concentration on a subject is another reason that was raised (3.11% of students' responses, 7.02% of prospective students', 2.78 % of tutors and managers', and 5.71% of policy makers' responses) and that is that some of the subjects are highly sensitive and should not be offered by distance. One tutor for instance said, 'medicine is an area which has life and death implications and cannot be taught remotely'.

In distance education, the teacher and learner are separated (Amundsen 1996:61-79, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8) but this should not imply that teaching/learning is 'remote'. Isolation can be overcome through use of different strategies to promote interaction between a learner and the tutor and amongst the learners. This is what Keegan (1996:130) calls the reintegration of the teaching/learning acts while Moore (1996b:24), emphasises the place of dialogue between the learner and the teacher.

All learning should not be conducted 'remotely'. There must be interaction or dialogue although this need not take place face to face. For example, many internal programmes today can also be said to be guilty of teaching 'remotely'. Conducting a lecture to 1,000 students in a lecture theatre without any interaction whatsoever surely makes the teaching here remote!

Nevertheless the concern that subjects require different competencies is in agreement with what Moore (1996:26) and Verduin and Clark (1991:125) raise and so the demands of each subject should be taken into account while planning activities and the need to maintain interaction and promote dialogue should not be underrated. It should be remembered that the content of the course, its structure and the expected learner outcomes dictate the choice of methods of teaching/learning.

h) Lack of understanding of the concept of Distance Education

Related to what is discussed in the previous sub section, some of the respondents (1.04% of the responses by students, 3.51% of prospective students', 2.78 % of tutors and managers', and 5.71% of policy makers') also said that distance education is not fully understood by both the policy makers and the implementers so this makes it difficult to offer the science-based courses. Although only a few respondents expressed this view, it is certainly a very interesting observation because as mentioned in chapter two section 2.4.3c, distance education always needs heavy initial investment for production of study materials and setting up student support mechanisms. However, this is not always appreciated and distance education is fronted as a cheaper alternative and as Bates (2000:122) says, some of the costs are *'…ignored, underestimated, or underbudgeted'.* This I believe is due to failure to understand what is fully involved in the establishment and provision of distance education programmes.

Although this was not mentioned by any of the respondents, however I believe this lack of understanding of the concept of distance education may also be responsible for what students view as their role in the teaching/learning contract. As will be discussed later in section 6.6.6a some of the students seem to believe that the face-to-face sessions are meant to cover entire course outlines and they do not therefore expect to be given a lot of work to cover on their own.

i) Lack of support and academic staff

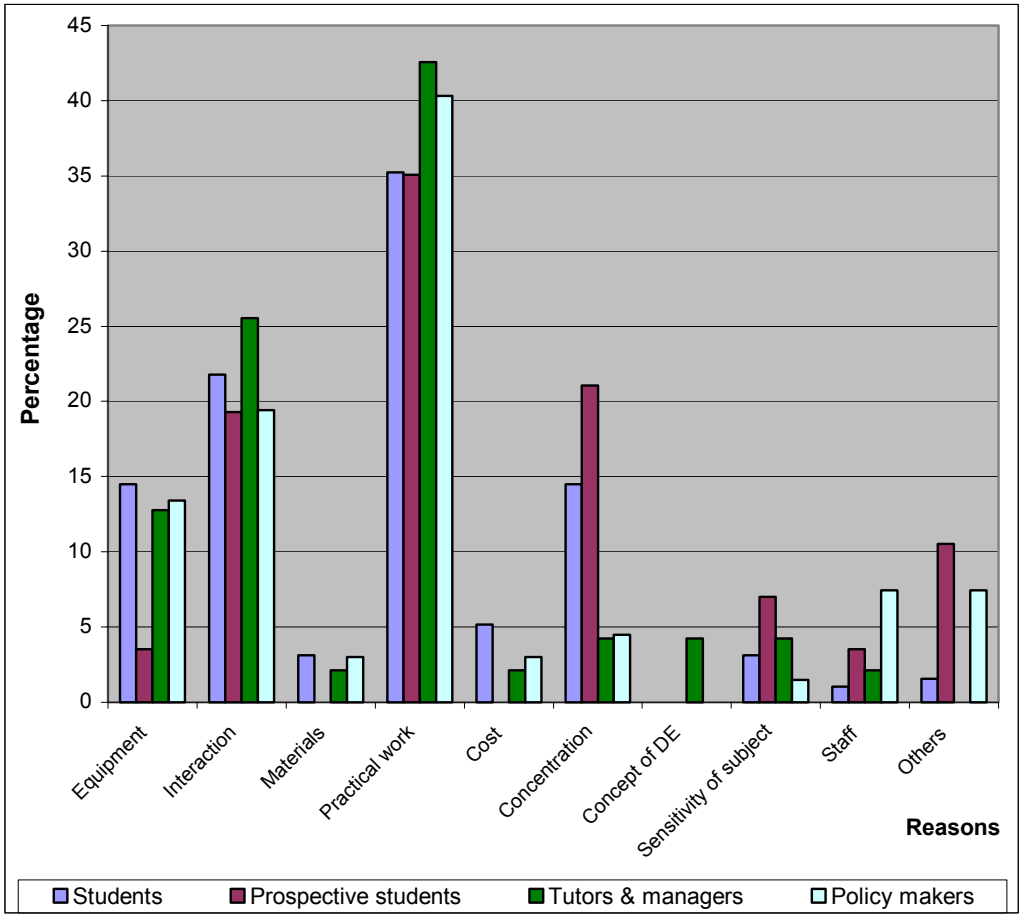
To run any educational programme, there is always need for both academic and non-academic staff. However, from the responses received, 1.08% by students, 4.08% by prospective students, 2.78% by tutors and managers, and 14.29% by policy makers, some respondents did express a fear that it will perhaps be difficult to offer some courses by distance education because of inadequate staff needed to provide support to students. Courses like Medicine and Engineering already have a challenge finding adequate staff for internal programmes therefore it is likely to be more difficult to find staff to provide support to distance learners.

In addition to all the reasons discussed in sub sections 5.3.4a to h, a few other reasons were raised and these are:

- Distance education is 'not suitable for undergraduate programmes'.
- 'Studying by distance education has too many diversions'
- 'Quality is difficult to achieve'.

Figure 5.3 gives the distribution of the reasons given by each category of the respondents.

Figure 5.3: Reasons for NOT offering certain courses by Distance Education



5.3.5 Conclusion

From figure 5.3 it has been shown that according to the respondents, the major reason for being hesitant about offering engineering, medicine and science courses is mainly because of the need for practical work and the need for 'hands-on' experience which to them is difficult to achieve in a distance education setting (35.23% responses by students, 35.09% by prospective students, 55.6% by tutors and managers, and 77.1% by policy makers). The other major and related reason given is the need for close interaction with the lecturers/tutors and the need for close supervision of students.

However, even while a number of reasons have been put forward for not offering certain courses, and as one education officer said, 'any course can be provided by distance education as long as there is demand for it and as long as the courses are well planned'. History of distance education in Uganda has no legacy of science-based distance education programme although Makerere University launched a

B.Sc. (External) programme in 2002; a sign that it is possible for science-based programmes also to be provided by distance education as long as sufficient plans and resources are put in place.

It is therefore evident that to ensure success in distance education programmes, it is vital to:

- Provide equipment and other resources required particularly for science courses.
- Ensure that there is close interaction and supervision of learners. This need not be done face to face but technology can be used to mediate between the teachers and their learners.
- Provide all the required instructional materials. These materials need not be printed but could be provided using any Information Communication Technologies (ICTs). However regardless of which ICT is chosen, the instructional material should be provided. This is much more vital since in distance education learners will for the most time have to study on their own.
- Cater for practical work and 'hands-on' experience for all courses that require practical work.
- Cater for funding of the programmes because inadequately funded programmes could imply unsustainability and poor service delivery.
- Programming of activities allows for sufficient time for learners to focus on what is being learnt for maximum involvement and concentration
- Sensitise all those involved in the programme on what constitutes distance education and on what the different roles are. This would go a long way to promote understanding of distance education.
- The specific nature and demands of each subject needs to be taken into account while planning activities.
- Ensure that there is adequate staff to develop study materials, manage and administer programmes and to provide student support.

5.4 PRACTICAL DEMANDS IN TEACHER EDUCATION

5.4.1 Introduction

Uganda trains both science and arts teachers and some of these subjects demand that practical work be carried out. Also teaching practice is as Ben-Peretz (1994:5993) says, considered as the most important component of the entire teacher

education curriculum and therefore has to be provided for in all teacher education programmes. However, in distance education, this is often challenging. Considering therefore the centrality of teaching practice in teacher education and the fact that it is not being provided for in the B.Ed (External) programme, tutors and managers of B.Ed (External) and policy makers were asked to indicate how practical demands in teacher education could be catered for and a number of strategies were proposed. Especially since this omission of teaching practice in B.Ed (External) is in the words of one of the policy makers '…an omission that has now boomeranged as a weakness…' Another official said, 'teaching practice is vital – training teachers without conducting teaching practice is like giving someone a car without teaching him/her driving' even when she/he cannot drive.

Tutors and managers and the policy makers were asked to give proposals of how they think general practical demands and teaching practice demands in teacher education can be catered for and the results to these questions will now be discussed. This question appeared in items 16 and 17 of the tutors and managers' questionnaire and of the interview schedule (appendix II and VI).

5.4.2 Providing for practical work in Teacher Education

When responding to the question on how practical work can be catered for in distance education teacher education programmes, five strategies were proposed:

- Use of face-to-face sessions
- Collaboration with other institutions for the use of facilities and actual practical work and its supervision
- Drawing local expertise from nearest the students to provide supervision and support to students
- Use of practical kits so that learners can carry out experiments at home.
- Integration of ICT to demonstrate, and provide guidelines

A total of 18 tutors and managers and 17 policy makers responded to this question and table 5.11 gives the frequencies and percentages of their responses.

Some respondents also said various other ways could be used but did not unfortunately specify what these 'other ways' are.

Table 5.10: Strategies for providing for practical work in Teacher Education programmes

How to Provide	RESPONSES			
	Tutors & managers'		Policy makers'	
	f	%	f	%
Use of face-to-face sessions and supervision	18	40.0	17	24.64
Collaboration with other institutions	5	11.11	16	23.19
Involving local expertise	2	4.44	9	13.04
Use of practical kits, equipment & materials	9	20.0	7	10.14
Integration of ICTs	4	8.89	7	10.14
Various other ways	7	15.56	13	18.84

From table 5.10, it is evident that majority of both the tutors and managers (40% of their responses) and the policy makers (24.64% of their responses) believe that to provide for practical needs of some of the subjects offered by distance education face-to-face sessions can be utilised. These face-to-face sessions can be conducted either centrally at Makerere University or at the study centres. Alternatively, these sessions can be organised at any other institution that has the required facilities. So the other major strategy recommended by the policy makers is through collaboration with other institutions (23.19% of their responses) whilst the tutors and managers recommended the use of practical kits, equipment and other materials (20% of their responses). Through collaboration facilities can be used for practical sessions or academic staff can be involved in the supervision and support of the distance learners. Alternatively, students can be given practical kits, equipment and other materials and the experiments or practical work carried out at home.

5.4.3 Catering for school practice in Teacher Education

Teaching practice or school practice also called the practicum is clearly important in teacher education because it serves many purposes (Ben-Peretz 1994:5993, Dove 1986:251). However, there is no one strategy that has been used to provide for it. Sometimes it has been offered as a series of block periods or a few days each week while trainees continue attending college/university (Dove 1986:251). At other times, as in the School-based approach, teacher trainees are expected to spend more time in the schools and their education integrated into the school activities (Furlong *et al.* 2000:2). The length of this school practice has also often varied from programme to programme and from institution to institution. Nevertheless, since distance education students on teacher education programmes spend most of their time in schools, the school-based approach to teacher education would be an appropriate model.

Tutors and managers of the B.Ed (External) programme and policy makers were asked to suggest ways in which school practice would be catered for in teacher education programmes run through distance education (item 17 of tutors and managers' questionnaire and item 17 of the interview schedule – appendix II and VI). A total of 32 tutors and managers and 33 policy makers responded to this question and table 5.11 gives the frequencies and percentages of their responses and each of the strategies recommended will be discussed in the subsequent sub sections. There were however some who said that school practice is not necessary because as one official said, 'for upgrading teachers, this may not be necessary'. Another however suggested that for teachers crossing from one school level to another (e.g. from primary to secondary), then teaching practice is necessary.

Table 5.11: Strategies for providing for teaching practice in Teacher Education programmes

How to Provide	RESPONSES			
	Tutors & managers'		Policy makers'	
	f	%	f	%
Supervision of student teachers	10	20.41	28	29.79
Posting of student teachers	2	4.08	25	21.28
Collaboration with other institutions & staff	15	30.61	19	20.21
Management of school practice	6	12.24	8	8.51
Structure and format of school practice	7	14.29	8	8.51
Other Strategies	9	18.37	11	11.70

a) Supervision of teachers in Distance Education INSET programmes

One of the major strategies recommended by the tutors and managers (20.41% of the responses) and by the policy makers (29.79%of the responses) was the supervision of teachers during the teaching practice. To effectively do this, different options were recommended and these include:

- Involving local expertise, for example, senior teachers, headteachers, and/or education officers in the supervision of the teachers in their schools. According to one Education officer, 'Develop an "associate assessor" model and use experts outside the university to assess the teachers'. This strategy is similar to the one used in the National Certificate in Education programme in Nigeria. In this programme, educators from the local higher education institutions supervised the school practice (Perraton, Robinson, and Creed 2001:19).
- Utilising peer group teaching during the training
- Involving external examiners/assessors of the teachers. In other words, assessment should not be by the University staff and collaborating staff alone.

External examiners should be carefully selected and involved. Makerere University is already involving external examiners in school practice of the internal students.

- For the other experts to be involved, the University needs to train and facilitate them. This is especially critical since knowledge of the subject and ability to teach internal students does not necessarily imply ability to handle distance education students.

b) Posting of teachers

Carrying out teaching practice presupposes that teachers are in or attached to schools for the exercise and to achieve this, the tutors and managers of the B.Ed (External) programme (4.08% of their responses) and policy makers (21.28% of their responses) recommended basically two options.

Option one is that, since many INSET students are teachers working in specific schools they could carry out their teaching practice in their schools to ensure they are not destabilised. Support should then be provided to them while they are in their schools. One policy maker for example said, 'teachers should remain in their schools and be supervised there so as to keep costs low and to avoid creating "vacuums" in schools'.

The second option is to post teachers to other schools and local expertise identified to provide support and to supervise the teachers. According one officer, teachers should be posted to other schools so 'to avoid bias and ensure independent reports'.

In addition, it was also recommended that 'posting of the teachers should take into account the students' and schools' needs'. This presupposes that the teacher training institutions will have already established what the school needs and student needs are. The training must strive to reconcile these two and only then can the training be relevant to the schools.

c) Structure and format of teaching practice

To be able to provide for the teaching practice demands, according to the tutors and managers of the B.Ed (External) programme (14.29% of their responses) and policy makers (8.51% of their responses) it is important to have a structure of teaching practice that can be implemented in a distance education programme. A number of options were suggested:

- Run teaching practice in 'block sessions' as done in the internal programmes. Another respondent however recommended that this should be '…done in the last two years of training'.
- Conduct teaching practice either 'at the end of the year or at the end of the final year'.
- Use 'project approach – focusing on one element of teaching practice at a time'. This means that '…specific needs/areas of concern that TP will address' should be identified.
- Use microteaching at both the centre (Makerere University) and at the regions.
- Schedule teaching practice as '…part of assessment'.

What seems paramount from all these recommendations is the need for a structure and format of teaching practice that would be convenient to the students allowing them to study as they work. To manage this effectively it was proposed that:

- Deliberate plans should be made for its provision. In so doing institutions would avoid what Dove (1986:244) calls poorly conceived and poorly organised teaching practice sessions.
- It should not be carried out during the period when the National Teachers' Colleges (NTCs) and other Universities also conduct their own teaching practice. The B.Ed (External) programme draws its tutors from the staff of Makerere University and from other universities and in a few cases from the National Teachers' Colleges. To ensure maximum participation of these tutors, the B.Ed (External) teaching practice must therefore be carried out at a time when these tutors will be available to provide support to the B.Ed (External) students.
- Decentralise management of the programme. If a more school based approach to training is adopted and the students are to spend more time in schools, then a highly centralised management of the programme will certainly not be appropriate. As it is, students of the B.Ed (External) programme are already spending most of their time in schools. The challenge would therefore be structuring training while taking this fact into consideration.

As already mentioned in prior discussions, (section 5.4.2) collaboration is critical if INSET distance education programmes are to successfully conduct teaching practice.

d) Collaboration with other experts

The Department of Distance Education, Makerere University runs the B.Ed (External) programme in collaboration with the School of Education. Tutors and managers (30.61% of their responses) and policy makers (20.21% of their responses) recommended that this should be extended to include collaboration and partnerships with various other experts and institutions. This collaboration and partnerships could be in the form of:

- Collaboration with schools, and involving senior teachers in these schools as 'cooperative teachers'.
- Involving any other relevant experts in the students' localities to supervise support and/or act as mentors.
- Involving headteachers '…but the headteachers should not supervise their own teachers'.
- Maximum utilisation of existing education infrastructure to plan and effect teaching practice.

The education system in Uganda has an infrastructure that includes Ministry of Education, District Education offices, universities, colleges and schools. If collaboration is to effectively work, then this existing infrastructure should be fully utilised. For example, in TDMS (see section 3.6.3) the programmes were run through a Central and District Management Framework that involved Ministry of Education and Sports officials at the Headquarters; Principals, Deputy Principals and Tutors of Primary Teachers Colleges; Institute of Teacher Education Kyambogo; District Education Officers; and external examiners. The B.Ed (External) programme therefore needs to closely consider adopting this strategy.

Also, for this collaboration and partnerships to work effectively, all involved must be trained and necessary facilities/funding provided. This also demands that clear roles and responsibilities of all collaborating parties be specified so as to avoid confusion yet ensure accountability.

5.4.4 Conclusion

Practical demands in teacher education are of great concern and need to be carefully integrated in the programmes. This is of even greater challenge in distance education programmes because if these programmes are to have credibility and if distance education is not to be viewed as 'an inferior alternative', then close attention must be paid to meeting these demands. There is no one strategy for achieving this,

but a combination of strategies could be employed taking into careful consideration the needs of the students and the needs of the schools and providing for them in a convenient, flexible but yet relevant manner.

5.5 FACTORS THAT IMPACT DE IN UGANDA

5.5.1 Introduction

To establish the factors that the sample believes impacts distance education in the country, a choice of seven options were given although the respondents were also free to identify any other factors. The respondents were not required to indicate which factor has the greatest impact on distance education; the emphasis was simply on what was seen to have impact not the degree of that impact. So although a specific factor may have been predominant, this is not a reflection of the degree of impact this factor has on the programmes.

Also, although this study is focusing on distance education INSET for secondary school teachers in Uganda, the question on factors impacting distance education did not specify INSET. It is however assumed that these factors also impact distance education INSET programmes for secondary school teachers in Uganda. Table 5.12 and figure 5.4 give the percentages of students, prospective students and tutors and managers who said these factors impact distance education while figure 5.5 gives the percentages of those who said these factors do not have any impact on distance education. See also table 5.12 for summary of the Chi-square results for each factor.

Table 5.12: Factors that impact Distance Education

Factor	**Students**	**Prospective students**	**Tutors & managers**	**Chi-square test**	**Comment (with p≤0.05)**
	%	**%**	**%**	p values	Statistical significance
Management & administrative systems in institutions	81.22	82.22	87.88	0.6543	Not significant
Funding of DE programmes	90.66	91.11	84.85	0.5704	Not significant
Expertise in distance education	76.92	69.57	81.82	0.4178	Not significant
Attitudes towards DE	80.77	86.67	90.91	0.2806	Not significant
Government policy on DE	81.87	88.89	69.70	0.0953	Not significant
Institutional policies on DE	76.92	68.89	90.91	0.0702	Not significant
Access to ICTs in the country	70.72	82.22	90.63	0.0270	Significant

Policy makers were also asked the same question although theirs was an open question and they therefore did not have a pre-set list to choose from but were free to raise whatever they felt was an important factor.

The distribution of the responses on these factors is represented in table 5.12 and discussed in the next sub sections.

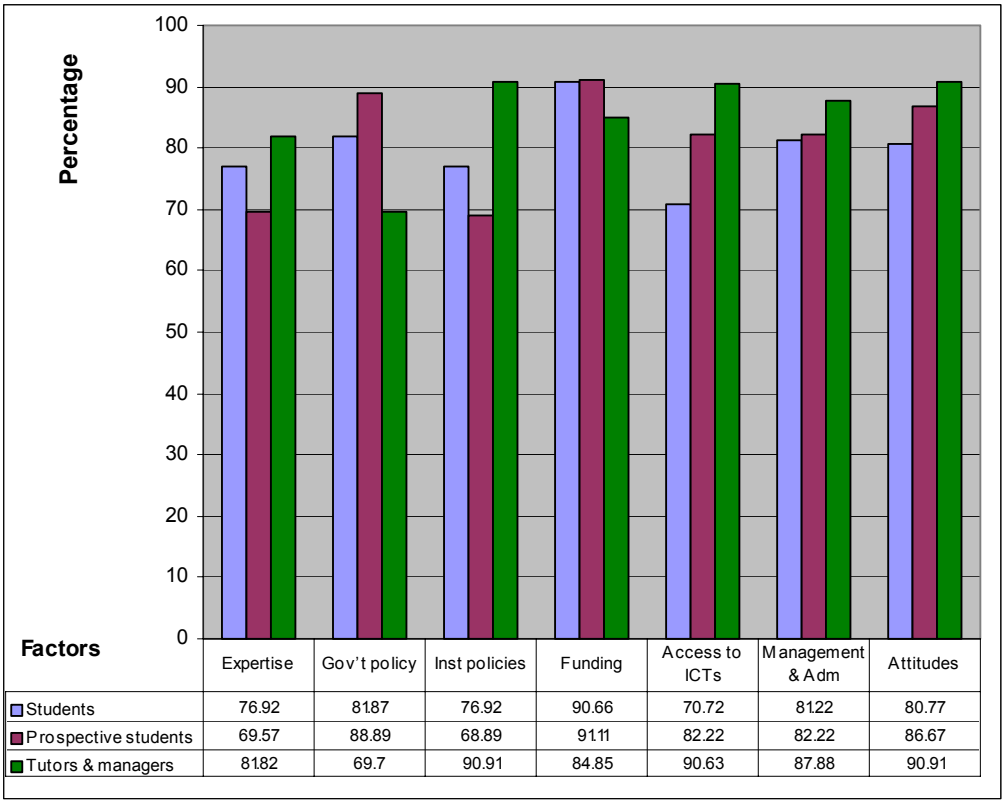
5.5.2 Management and administration of Distance Education

Management and administration is very central in distance education programmes since distance education institutions are meant to be helping organisations (Holmberg 1986:110). So to effectively carry out this helping task, there has to be an administrative framework within which the activities are carried out and there has to be division of labour and rationalisation of all the activities (Peters 1994:109). It was therefore critical to establish whether the respondents in this study see management and administration as a factor likely to impact distance education in Uganda.

From those who responded to this question, there was general agreement that indeed management and administration do impact distance education. This view was held by 81.22% of the students, 82.22% of the prospective students and 87.88% of the tutors and managers of the B.Ed (External) programme. When this same question was put to the policy makers, 9.47% of the views expressed indicated that management and administration do impact distance education programmes. According to one official, 'management systems and structures in institutions influence running of distance education programmes'. Another was concerned about the 'capacity of institution to run distance education programmes'. It is therefore important that institutions deliberately plan to develop institute and staff capacity to design, develop, manage and run distance education programmes. Each institution should have the capacity to:

- Develop policies and systems that will enhance the provision of distance education programmes
- Manage and administer distance education programmes in cost effective and cost efficient ways
- Design and develop study materials
- Design and manage effective student support services
- Integrate Information Communication Technologies in the programmes
- Monitor and evaluate programmes

Figure 5.4: Factors that impact Distance Education



5.5.3 Funding of Distance Education programmes

There was general consensus that funding is a factor that impacts distance education. From those who responded to this question, 90.66% of the students, 91.11% of the prospective students and 84.85% of the tutors and managers said that funding impacts distance education. This confirms what is reflected in some of the case studies documented by Perraton, Robinson and Creed (2001). In these case studies, funding issues are shown as having had impact on how the programmes were run and structured. For example, in relation to the Brazillian TV-Futura programme, they conclude *'TV-Futura is a high risk and vulnerable initiative since it relies totally on private funding…'* (Perraton, Robinson and Creed 2001:8). Inadequate funding and uncertainties about continuous sources of funding can have a huge impact on the lifespan and structure of distance education programmes.

When policy makers in the study were also asked to suggest what they believe impacts distance education in Uganda, a number of views on funding were expressed, for example:

- 'Capacity of the institutions to provide DE. Inadequate structures and resources leading to poor quality provision.'

- 'Funding of the programmes – poorly funded programmes have weak structures'.
- 'Payment of fees – all DE programmes are not free so those who cannot afford are left out'.

This last point illustrates what Henri and Kaye (1993:27) raise regarding distance education programmes that shut out the very people they are supposed to reach because of restrictions of entry requirements, fees levied, access to study materials and technology used.

One of the attractions of distance education is because it is believed to be cheaper than internal programmes. However, it is also true that distance education requires substantial initial investment for purposes of developing study materials, setting up student support structures and managing its programmes although as Bates (2000:122) says that often times these costs are *'…ignored, underestimated, or underbudgeted'.*

5.5.4 Expertise in Distance Education

Provision and management of distance education requires special knowledge and skills. For example, Verduin and Clark (1991:4-5) said *'distance education can be characterised as a form of adult education'*. If therefore distance education is viewed as a form of adult education and if majority of the learners on distance education programmes are adults, then providers of distance education programmes need to understand the basic principles that govern adult learning. Also, distance education has always relied on technology to facilitate dialogue between the learners and the teachers/institutions and for the provision of study materials (Amundsen 1996:67, Holmberg 1995b: 2, Keegan 1996:131, Moore 1996:25, Mishra 2001:4, Verduin and Clark 1991:124). For providers of distance education programmes to effectively and maximally utilise technology to do all this, and for them to produce study materials that are relevant and interactive they must be trained. Expertise in distance education is therefore vital.

5.5.5 Attitudes towards Distance Education

In chapter two section 2.3.7 the challenges facing distance education were discussed because, in spite of its growth, distance education is still viewed as second-rate option to internal programmes (Paul 1990:59). This attitude is unfortunately, according to (Perraton 2000:82,199) held by learners, parents, and in some countries amongst Ministry of Education officials as well.

In this study, it was therefore important to establish whether this is viewed as an important factor. The results revealed that 80.77% of the students, 86.67% of the prospective students and 90.91% of the tutors and managers all believe that attitudes towards distance education do impact distance education. Policy makers also raised attitudes as a factor and to some of them:

- 'Public looks at those doing distance education programmes as getting second rate degrees. For example belief that B.Ed students cannot teach "A" Level after qualification'.
- 'Many have reservations regarding effectiveness of distance education'

Some of the policy makers also suggested that this poor attitude is a result of 'lack of sensitisation of the public and policy makers about distance education' and therefore 'lack of understanding of distance education'.

If the public in Uganda, as one of the officials said, view distance education degrees as second rate, then this is likely to affect who and how many actually enrol on the programmes. Besides, if prospective employers have no faith in the distance education graduates then the acceptability and employability of these graduates is likely to be compromised and this would in turn affect credibility and sustainability of the programmes.

Attitudes can not be ignored but should rather be addressed and hopefully changed perhaps through sensitisation as suggested but also through ensuring high quality programmes so as to win the 'Doubting Thomases' over.

5.5.6 Government policy on Distance Education

In this study, there was tremendous support for government policy on distance education. 81.87% of the students, and 88.89% of the prospective students agreed that government should come up with a comprehensive policy on distance education. Ironically however, in response to the question of which factors impact distance education (item 10 in the tutors and managers' questionnaire – appendix II) the lowest percentage of tutors and managers (69.70%) believed that this is an important factor. Although according to the Chi-square test with $p \leq 0.05$, (p value of 0.0953 was arrived at) this difference in opinion is not statistically significant. It is not evident why fewer tutors and managers than students think that government policy on distance education is a factor that impacts distance education yet, the lack of clear policy on distance education seems to actually impact distance education in the country. One of the policy makers was for example concerned that there is 'lack of a qualifications

authority in Uganda. This means no control over who runs DE programmes and standards to be maintained'.

The government of Uganda does not yet have a comprehensive policy on distance education. True the Government White Paper on Education does recommend the use of distance education for training of teachers and had also recommended that an Open University be opened before 2000 (Republic of Uganda 1992:95), however there is no comprehensive policy laid down. This lack of specificity on distance education is also evident in the Issues Paper on Higher Education that the Ministry of Education and Sports commissioned Prof Kasozi to write. In this paper and in spite of a clear description of the likely pressure on education that is likely to be created as a result of the UPE bulge, distance education is not recommended as a possible alternative! Instead this paper recommends that the Open University be delayed until all the infrastructure to support it is in place (Kasozi [s.a.]: 15)!' This issues paper is supposed to form the basis for policy on higher education and yet it appears not to recognise the viability of distance education. There is a huge gap in terms of policy governing distance education in Uganda. Perhaps this is why up to now Uganda has no Open University and most of the distance education programmes are privately sponsored. It is likely that this is related to the attitude of the policy makers towards distance education as already discussed in section 5.5.5.

It is for instance a contradiction that students who join Kyambogo University for a full time two-year B.Ed programme receive government funding and yet B.Ed (External) students are not given any financial support. The B.Ed students of Kyambogo University 'abandon' their stations for two years whilst the B.Ed (External) students continue to serve the nation by continuing to teach while studying. This I believe is a policy matter that needs to be clarified.

This whole scenario of lack of a comprehensive policy is different from the South African one. South Africa has made a lot of progress in distance education and I believe this is because the country has a comprehensive policy on distance education. For example, in 1996, South Africa developed a quality assurance framework for use in the provision of distance education in the country (Directorate of Distance Education, Media and Technological Services, Department of Education 1996).

5.5.7 Institutional policies on Distance Education

Related to the issue of government policy was the issue of institutional policies. Of those who responded to this question, 76.92% of the students, 68.89% of the prospective students and 90.91% of the tutors and managers were of the view that this factor impacts distance education. The difference in opinion here is also not statistically significant with a p value of 0.0702. However, the prospective students had the lowest percentage and this may be because since the majority are student teachers at National Teachers' Colleges, they may have had less perception of what impact institutional policies can have on programmes. On the other hand, tutors and managers grapple with Makerere's policies in the implementation of their duties and so see institutional policies as likely to impact distance education.

Moore (1996:27) identifies the constraints that are imposed by the institution as factors likely to influence the structure of a programme. For example ,whether the programme will have fixed deadlines for registration and examinations is likely to be influenced by policies of the institution.

One policy maker was concerned that ' the different calendars for the different institutions i.e. universities – semesters, schools – terms '… was creating clashes in the programming of activities. Another was concerned because of lack of '…clear policy on equivalences of various certificates being issued by the different institutions'.

Providers of distance education programme therefore need to ensure that policies put in place are the kind that will promote efficient and effective provision of distance education programmes.

5.5.8 Access to Information Communication Technologies

The growth of distance education has been closely associated with the technology of the time (Garrison, 1996:17) and so distance education and technology can be said to be inseparable (Amundsen 1996:67). Access to technology should therefore be a factor that is likely to impact distance education. The case studies documented by Perraton, Robinson and Creed (2001) illustrate use of different technologies and the as in the case of funding, the choice of technology has implications of how the programme is structured and also has cost implications on programmes. So, clearly, existing literature indicates that technology has a lot of impact on distance education programmes.

In this study, 70.72% of the students, 82.22% of the prospective students and 90.63% of the tutors and managers were of the view that access to technology does impact distance education. This difference of opinion is statistically significant with a p value of 0.0270. In fact in relation to all the factors listed in the research instruments, access to technology is the only one where the statistical difference was significant. See also table 5.12. The major difference of opinion seems to be between the students and tutors and managers. Tutors and managers need technology to design and develop study materials and they need technology to manage the programme. For example, with the growing use of computers in designing and typesetting course materials, the tutors would therefore see access as likely to impact their activities. On the other hand, since the B.Ed (External) uses written study materials as core mode of teaching/learning, the students may not see the immediate impact of lack of access to technology.

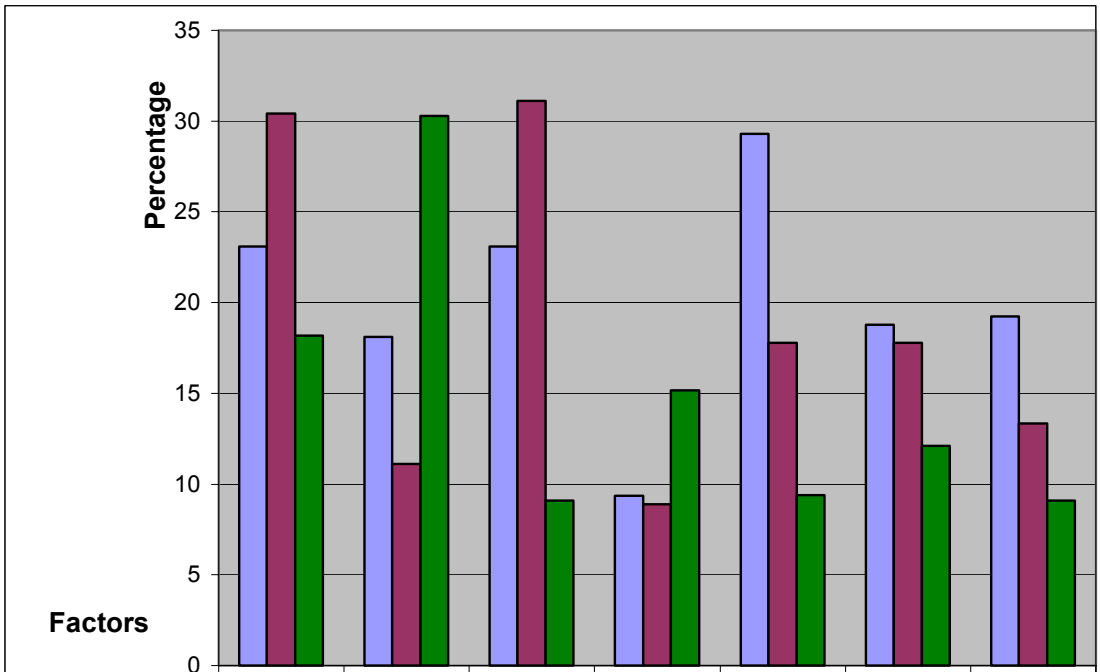
5.5.9 Factors that DO NOT impact Distance Education

The questions that were put to students, prospective students and to the tutors and managers were YES/NO questions. This therefore implies that although as discussed in the preceding sub sections most of the factors listed received support the same factors were said not to impact distance education.

From the results obtained the highest percentage of prospective students felt that institutional policies (31.11%) and expertise in distance education (30.43%) did not impact distance education. On the other hand the highest number of tutors (30.30%) and managers were of the view that government policy did not impact distance education while 29.28% of the students were of the view that access to ICTs had no impact.

Figure 5.5 graphically represents these views.

Figure 5.5: Factors that DO NOT impact Distance Education



	Expertise	Gov't policy	Inst policies	Funding	Access to ICTs	Management & Adm	Attitudes
Students	23.08	18.13	23.08	9.34	29.28	18.78	19.23
Prospective students	30.43	11.11	31.11	8.89	17.78	17.78	13.33
Tutors & managers	18.18	30.3	9.09	15.15	9.38	12.12	9.09

5.5.10 Conclusion

Overall, all the factors listed were believed to have an impact on distance education and additional factors were also identified. Nevertheless some of the respondents were of the view that these factors did not impact distance education. However, the instruments did not seek to establish the degree of impact of each of these factors. The study only sought to establish which factors were considered to impact distance education. A factor with the highest percentages does not therefore imply it has the highest degree of impact. Figure 5.4 graphically illustrates the distribution of the percentages of the students, prospective students and tutors and managers who said that the factors listed impact distance education. Additional factors identified include:

- Accommodation during face to face
- Age of learners
- Attitude of staff
- Individual expectations
- Job security & promotion of student
- Learners' distance from institution
- Other responsibilities of students
- Sectarianism by staff
- Staff running the programmes
- Timing of programmes
- Quality of services offered
- Lack of knowledge about DE
- Education level of learner
- Religious affiliation of student
- Learning environment
- Credibility of institution

- Support of local leaders
- Communication facilities
- Mode of assessment
- Unemployment
- Time spent on face to face
- Economic status of students
- Support services available
- Access to education
- Government policy on education and In-service
- Quality & structure of programme
- Demand for education
- Globalisation
- Competition in the education sector
- Political support for DE
- Reading culture
- Security

However as shown in the discussions 5.5.2 – 5.5.8, there was a difference in terms of what was more popularly viewed as impacting distance education. Whereas funding of distance education had the highest support from students (90.66%) and prospective students (91.11%), the highest number of tutors and mangers indicated institutional policies on distance education, access to ICT and attitudes towards distance education (at least 90% for each). Policy makers seemed to agree with the students view because majority of them too chose funding of distance education (13.68% of the responses). However the highest number of responses given by policy makers on factors impacting distance education was actually on support services available to students (14.74% of the responses). It would therefore appear that policy makers put availability of support services above all the other factors.

It is not clear why there is such a divergence of views regarding what impacts distance education. However, it would appear that since the B.Ed (External) and B.Sc. (External) are both self-financing programmes and students must pay fees and meet all the other costs; this might explain why the majority of the students viewed funding as a factor that impacts distance education. On the other hand, tutors and managers have a clearer understanding of institutional policies and would therefore have a deeper insight of their impact on distance education. Nevertheless, there is consensus that there are a variety of factors that are impacting distance education in Uganda. The study may have not established the degree of impact of each factor but a number have been identified and each needs to be carefully taken into account to ensure more efficient and effective distance education programmes.

5.6 GOVERNMENT POLICY ON DISTANCE EDUCATION IN UGANDA

5.6.1 Introduction

The Constitution of Uganda states that *'all persons have a right to education'* (Republic of Uganda 1995:29) and also since education is a social service, the

government of Uganda has a very central role to play in its provision. To fulfil this government has set up various institutions, departments and organs to carry out these functions. A number of policies have also been put in place to guide the implementation of government plans and meet the demand for education. However, as already mentioned in section 5.5.6, there is no comprehensive policy on distance education in the country.

Students, prospective students, tutors and managers of B.Ed (External) were therefore asked whether it is their opinion that government needs to come up with a policy on distance education. In response to this, there was general support for government policy on distance education although six students (3.37%) and two prospective students (4.17%) were of the view that there is no need for any government policy on distance education. According to one official, we need a 'policy that will direct the path of open and distance learning because there is a lot of interest but there is no guidance by the Ministry'.

When asked to identify specific issues that a policy on distance education would need to highlight, a number of issues were proposed and these are now discussed in sections 5.6.2 – 5.6.11. A total of 161 students, 38 prospective students, 30 tutors and managers, and 35 policy makers responded to this question. However, in the discussion of the results the frequencies and percentages of the responses received rather than frequencies and percentages of the respondents is presented.

5.6.2 Accreditation and recognition

In section 2.3.3 it was pointed out that distance education has grown and part of the evidence of this growth is in the number of distance education institutions that have been opened; and according to Holmberg (2001:17 – 18), International Centre for Distance Learning (ICDL 2003a:1) and Robinson (1996:4) there are now more than 1,000 institutions. Many of these institutions are running both credit and non-credit courses. However in Uganda most of the distance education courses that are being offered in the country are credit courses.

The issue of accreditation is therefore an important one and it was the view of the respondents that a policy on distance education should explicitly specify who can award certificates, diplomas and degrees. Just as the government registers schools and institutions whether private or public and this registration status determines which programmes, certificates, diplomas or degrees an institution can offer, the

same practice should apply to distance education. In relation to this, it was also their view that the policy should recognise distance education as a viable option. According to one education official, distance education should be recognised as one of the alternatives, he said 'mainstream distance education. Establish distance education as one of the mainstream alternatives of providing education. Therefore an important alternative not as a second rate one'. One of the tutors shared this view when he said, 'recognition that distance education can produce graduates of similar nature with that of conventional methods of education'. The issue of quality assurance in teacher education programmes is discussed in chapter 6 section 6.4.8.

Accreditation and recognition covers status of distance education in relation to internal programmes, monitoring agencies that should monitor distance education programmes, and research in distance education so as to ensure credibility. The highest number of responses on accreditation and recognition as one of the issues that the policy should cover was by policy makers (6.25% of their responses). They were followed by the tutors and managers (with 5.88% of their responses, 3.17% of prospective students' responses and, students with 1.06% of their responses).

5.6.3 Entry requirements and courses to be offered

Concern was expressed in relation to entry requirements and courses that should be offered by distance. This may arise from what was discussed earlier in section 5.3.4 where reservations were expressed in relation to offering science-based programmes by distance. So, from those who responded to this question, a total of 14.18% responses received from students, 28.57% from prospective students, 17.71% from policy makers and 18.82% from tutors and managers were that, any policy on distance education that government comes up with should deal with entry requirements and courses to be offered. In particular, the following should be dealt with by the policy:

- Entry requirements of all admitted for distance education programmes. One of the problems some of the teacher education programmes have faced is admitting candidates that have weak passes (Dove 1986:241, Iredale 1996:13, Robinson and Latchem 2003a:4). Determining entry requirements is one way of avoiding this however, if distance education is meant to democratise education by opening up access (De Wolf 1994:1558, Holmberg 1995b:13, Rumble 1992:19), prescribing entry requirements then implies distance education programmes will cut off those that it would be expected to reach.

- Courses to be offered, their duration, certification, and the level of education that distance education can serve. For example, in the words of one student, 'distance education should not be offered at elementary levels e.g. primary, secondary, and Diploma in Education (Secondary)'. Also that the policy should emphasise the need for relevant courses.
- Quality of distance education programmes. The policy should state what is required to ensure quality programmes. Related to this, was the suggestion that the policy should cover rules and regulations governing distance education. See also chapter 6 section 6.4.8 for further discussion of quality assurance in teacher education programmes.

5.6.4 Rules and regulations governing Distance Education

To ensure that distance education institutions have all the required facilities and that the programmes run are of high quality, it was proposed (8.51% of the responses by students, 1.59% of the prospective students' responses, 11.76% of the tutors and managers' and 30.21% by policy makers') that the policy should:

- State the minimum standards that each programme should meet and minimum requirements that must be in place before any institution is permitted to run distance education programmes. One education officer was particularly concerned about the protection of consumers and said, 'Need a policy that will protect consumers from conmen/conwomen'. So, it was also suggested that there must be 'quality assurance for the institutions, programmes and outputs of the institutions (this must be comprehensive)'.
- The roles of the National Council for Higher Education and Education Standards Agency as monitoring agencies. These are national institutions and it was the view particularly of some policy makers that a policy on distance education should highlight the role of these institutions in distance education as well. For as of now, these institutions seem to focus much more on internal programmes.
- Also state rules and regulations governing study leave matters for trainees and their workload.

Rules and regulations governing distance education would govern both the national and international providers of programmes.

5.6.5 Funding and equipment for Distance Education programmes

One of the factors that was identified as having impact on distance education in Uganda is funding (see section 5.5.3) and on the question of what the policy on distance education should highlight, this was again raised (28.37 % responses by

students, 25.40% by prospective students, 10.42% by policy makers, and 18.82% tutors and managers). Some of the issues specifically raised are:

- Funding and subsidies of distance education. Most of the distance education programmes being run in Uganda are privately sponsored programmes. Students on these programmes pay tuition fees and cater for all their other financial needs. It was therefore suggested that there should be clear policy about this.
- Tax levies on technology and study materials. In the words of one education officer, 'high taxes make these materials expensive.'
- Cost of distance education programmes to students.
- 'Unlimited use of all Ministry of Education and all government institutions' facilities by distance education programmes.'

The bulk of B.Ed (External) funding is from student fees and this covers registration, tuition, and examinations. In addition, students meet all the costs of transport to venues for face to face sessions, accommodation and food during these times, photocopying of some study materials and any other related personal costs. Ironically however, as mentioned in section 5.5.6 students who join Kyambogo University for a similar but internal programme receive government funding covering tuition, accommodation and food. I believe this contradiction in government funding of B.Ed students is one of the reasons for a higher number of students suggesting that there ought to be a policy on funding of distance education programmes.

5.6.6 Human resource for Distance Education programmes

Distance education institutions require human resource to effectively and efficiently run its programmes. For example, according to Mishra (2001:4) an institution planning to launch Internet programmes must be prepared to do so. It must ensure it has the expertise to design programmes and the academic staff must be trained and prepared to undertake all tasks that will be required of them.

A small proportion of participants in this study likewise identified human resource as an area of concern. Of all the responses received from students on what the policy should cover, only 5.32 % were on human resource, while 4.76% of those by prospective students, 4.17% by policy makers, and 5.88% by tutors and managers. In particular their views were that, qualifications and remuneration of distance education staff and their training needs should be included in the policy.

5.6.7 Student support for Distance Education programmes

One of the major characteristics of distance education is that the learner and the teacher are separated among other things by distance and time, (Amundsen 1996:61-79, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8). To bridge this gap between the learner and the teacher/institution, the distance education institutions have to play a supportive role in their running of distance education programmes (Holmberg 1986:110, Keegan 1996:120). The participants in this study felt that student support needs to be highlighted in any policy on distance education. The specific areas of concern that this policy should highlight are:

- Study centres that are '…within easy reach should be identified.' These centres should also be equipped, so the policy should concern itself with this as well.
- The need for decentralisation of distance education programmes. This is perhaps with the assumption that decentralisation implies taking services nearest the students.
- Provision of study materials.

What is raised here can also be related to what has been discussed under section 5.6.4. When talking about rules and regulations, the respondents said that the policy should specify the minimum requirements that institutions intending to offer distance education must have. Student support systems and services can be taken as part of this 'minimum requirements'.

From the responses received on what the policy should include, 19.5 % of those given by students, 17.46% by prospective students, 7.29% by policy makers, and 21.18% by tutors and managers, were on student support.

5.6.8 Access and democratisation of education

Distance education is popular because of its potential to increase access and reach out to those who are disadvantaged thus democratising education (De Wolf 1994:1558, Holmberg 1995:13, Rumble 1992:19). The respondents in this study also see this issue as important and want it highlighted in a distance education policy. So to them, (2.13 % of the responses given by students, 11.11% by prospective students, none from policy makers, and 2.35% by tutors and managers) the numbers to be trained each year should be specified and the question of access in the rural areas needs to be particularly addressed.

This policy should, according to some students, also indicate who should train, when and how many each year. One student said, 'distance education should not be used for elementary levels e.g. primary, secondary school and diploma level.' I find this contradictory with the view of using distance education to democratise education because prescribing who and how many should train each year will imply eliminating some of those who would probably have wanted to study by distance education. This is not democratising education.

5.6.9 Employment and remuneration of graduates of Distance Education programmes

From the comments given, (12.41 % of the responses given by students, 7.94% by prospective students, 5.21% by policy makers, and 3.53% by tutors and managers) it was the view of the respondents that a policy on distance education should also cover employment and remuneration of graduates of distance education programmes. This seems to particularly concern teachers that enrol on distance education programmes. According to one student, the policy should cover 'employment opportunities after course and remunerating equivalent to the qualification attained' and another student said, 'appointment of graduate teachers, updating salaries to match the new qualifications…' There should therefore be a clear policy regarding the remuneration of graduates; unlike the current situation where teachers are upgrading but are not being registered at their new qualification level. A circular from the Ministry of Education and Sports states in part, *'attainment of higher qualifications will not automatically lead to promotion to Grade V or Graduate teacher…'* (Lubanga 28th May 2002).

According to the respondents, the policy should therefore specifically cover:

- Registration of graduate teachers
- Salary scales of graduate teachers
- Promotional opportunities for graduate teachers and
- Job security

5.6.10 Institutions that can offer Distance Education programmes and their administration and management

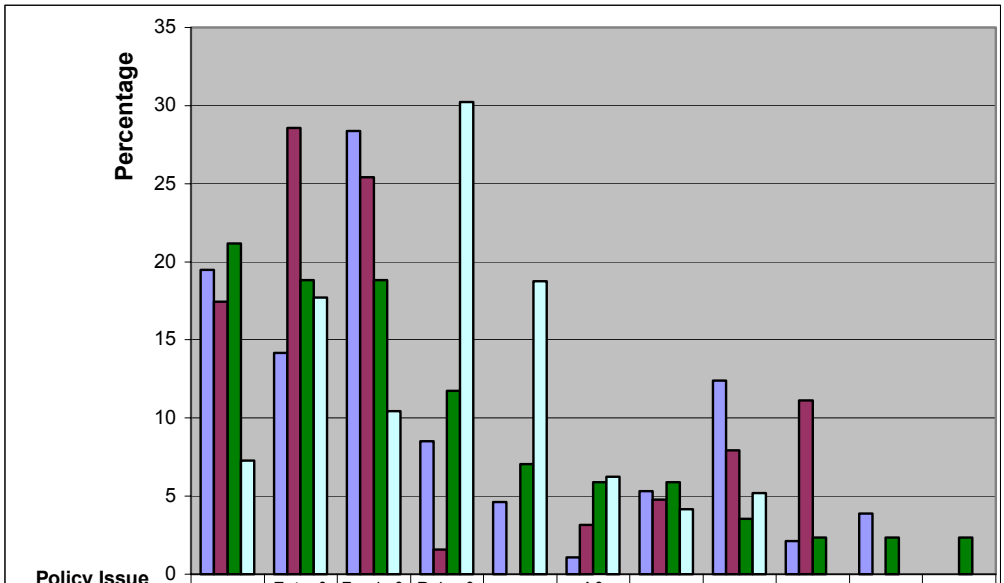
There seems to be concern about the growing number of distance education programmes that are being offered by both national and foreign institutions so, some of the respondents (4.61% of the responses by students, none by prospective students, 18.75% by policy makers, and 7.06% tutors and managers) believe that there ought to be a policy specifying:

- Which institutions can offer distance education programmes. One student said the policy should highlight 'institutions that can provide distance education and what the requirements to do are'.
- How those institutions are managed and administered; and
- How the programmes in those institutions are programmed and scheduled.

Policy makers had the highest number of responses and I believe this is because at their level, the major concerns are at a more national level.

Figure 5.6 illustrates the distribution of the responses that were received with regard to the different issues that a government policy on distance education should cover.

Figure 5.6: Issues to be Included in a government policy on Distance Education



Policy Issue	Support	Entry & courses	Funds & equip	Rules & Reg	Insts	A& recog	H/R	Employ	Access	MUK	Others
Students	19.5	14.18	28.37	8.51	4.61	1.06	5.32	12.41	2.13	3.9	0
Prospective students	17.46	28.57	25.4	1.59	0	3.17	4.76	7.94	11.11	0	0
Tutors & managers	21.18	18.82	18.82	11.76	7.06	5.88	5.88	3.53	2.35	2.35	2.35
Policy makers	7.29	17.71	10.42	30.21	18.75	6.25	4.17	5.21	0	0	0

5.6.11 Policy related to Makerere University

Apart from general distance education policy issues raised, the respondents especially the students (3.90% of responses given by students and only 2.35% of those by tutors and managers) raised a number of other issues that a distance education policy of Makerere University in particular should highlight. The issues are:

- Buildings and facilities for the Department of Distance Education

- Student support services and facilities
- Staff and their remuneration
- Provision of study materials
- Fees payments and the scheduling of these payments

This is perhaps as a result of some of the challenges that both the students and tutors of the Makerere University external programmes face. To them therefore some of these challenges would be better addressed if Makerere University came up with clear policies regarding all these issues. The weaknesses of the B.Ed (External) programme are discussed in chapter six section 6.6.

5.6.12 Conclusion

The government of Uganda has a commitment to provide education to all its citizens in accordance with its constitution and to guide this process various policies are in place. However, there is no comprehensive policy on distance education and according to the participants in this study, it is necessary for government to come up with a policy that will guide the growth, development and provision of distance education in the country and various issues that this policy should cover have been suggested.

5.7 SUMMARY

This chapter has been concerned with exploring the question of viability of distance education for the provision of education in Uganda. In chapters two and three, it was established that distance education is growing worldwide and is increasingly being used for various purposes especially for teacher education. This study focused on exploring the viability of distance education in Uganda and a number of vital findings have been established.

Although the study has established that there is general belief in the viability of distance education to meet various education needs in the country, there is hesitation regarding its efficacy to cater for education in the science related fields. This is largely because of the demands in these subjects for practical work, hands-on experience, specialist study materials and equipment, close interaction and supervision by tutors, and the likely high cost of providing these courses. The challenge therefore in Uganda is that, whereas any course can be provided by distance education, for this to be effectively carried out so as to meet the needs for education in the sciences, a lot must be done to cater for these demands otherwise the scientists trained are likely to be viewed as ‘half-baked’.

Practical demands in teacher education are of great concern and need to be carefully integrated in all programmes regardless of whether these programmes are being presented by distance education or by face to face. This study was concerned with this and it has been established that catering for this is likely to be a huge challenge in distance education. Therefore, a combination of strategies should be employed taking into careful consideration the needs of the students and the needs of the schools and providing for them in a convenient, and flexible but yet relevant manner.

The challenge of running distance education in Uganda is partly because of various factors that are impacting its management, and delivery. A number of these factors were identified although the study did not establish the degree of impact of each factor. Nevertheless, each of these factors needs to be carefully taken into account to ensure more efficient and effective distance education programmes.

Policy on distance education was identified as one of the factors impacting distance education and the respondents generally agreed that Uganda needs to come up with a more comprehensive policy that will guide the running of distance education in the country. The study also identified the issues that this policy ought to cover. According to the respondents, this policy should concern itself with:

- Accreditation and recognition of distance education as a viable alternative
- Entry requirements and the courses that can be offered by distance education
- Rules and regulations governing distance education
- Funding of distance education programmes
- Human resource for distance education
- Student support for students in distance education programmes
- Access and democratisation of education through use of distance education
- Employment and remuneration of graduates of distance education programmes
- Institutions that can offer distance education and the administration and management of these institutions

So, according to the study, distance education has a huge potential but there are a number of factors that may be limiting the full realisation of this potential especially with regard to the running of science-oriented courses and with regard to meeting the practical demands of teacher education. However, with careful planning of the programmes taking into consideration their needs, it is possible to effectively and efficiently provide any course.

CHAPTER SIX

STRENGTHS AND WEAKNESSES OF TEACHER EDUCATION PROGRAMMES RUN BY DISTANCE EDUCATION IN UGANDA

6.1 INTRODUCTION

A number of In-service Teacher Education (INSET) programmes have been run by distance education in Uganda and those that have been running since 1990 were discussed in chapter three. This study focused on INSET distance education for secondary school teachers in Uganda. To do this, the participants in the study were asked to indicate, from the list provided, all the different programmes they have participated in and to identify the strengths and weaknesses of these programmes and to suggest ways of improving these programmes.

In particular, the respondents were also asked to identify the strengths and weaknesses of the Bachelor of Education (External). The purpose of all this was so as to propose a framework that can be used to improve the provision of INSET distance education programmes for secondary school teachers in Uganda. The guidelines proposed in chapter eight were informed by the findings of this study.

This chapter therefore presents the findings of the study related to:

- The number of respondents that participated in the different teacher education programmes provided by distance education
- Strengths and weaknesses of teacher education programmes that have been provided by distance education in Uganda in general
- Strengths and weaknesses of the B.Ed (External) in particular
- How these teacher education programmes can be improved
- The different quality assurance mechanisms that should be put in place in these teacher education programmes in Uganda

In discussing the different categories of strengths and weaknesses identified, it should still be remembered that these are not mutually exclusive but are interrelated, sometimes with a weakness or strength in one area having a feeder effect in another area. So although each of the strengths and weaknesses identified will be briefly discussed separately, their interrelatedness should not be forgotten.

Also, since the focus of the study was on INSET by distance education for secondary school teachers, any reference to *teacher education programmes,* unless so indicated, is meant to apply to teacher education programmes that are provided by distance

education; and the Makerere University Bachelor of Education (External) shall be referred to as *the B.Ed (External)* unless otherwise indicated.

As already discussed in chapter four section 4.7.2, all qualitative data collected was grouped according to categories and numbers assigned to these categories and these numbers were used to code all the data. See appendix VII for the research questions, the categories that were used to group and code the qualitative data and the different sources of this data.

In handling the qualitative data received, frequencies and percentages given in this discussion are of the responses received to each question. This strategy was adopted because the questions were open-ended, and also because it was possible for a respondent to give more than one response on the same issue. For example, it was possible for a respondent to identify two or more strengths but all of which had to do with students support. It was therefore deemed inappropriate to use frequency and percentages of **respondents**. The same strategy was used when discussing the weaknesses of the programmes as well. All this therefore implies that wherever qualitative data is presented in frequencies and percentages, this refers to frequencies and percentages of **responses** rather than of **respondents.**

6.2 PARTICIPATION IN TEACHER EDUCATION PROGRAMMES RUN BY DISTANCE EDUCATION

All the respondents were asked to indicate whether they had participated in any teacher education programmes and in what capacity they participated in the said programmes. So teacher education programmes that have been run by distance education since 1990 were listed and the respondents had YES/NO answers to choose from. See items 11 and 12 of the tutors and managers'; and students' questionnaire, items 12 and 13 of the prospective students' questionnaire and items 11 and 12 of the interview schedule (appendices II – VI). The programmes listed include:

- Mubende Integrated Teacher Education Project (MITEP)
- Northern Integrated Teacher Education project (NITEP)
- Teacher Development and Management Systems (TDMS) Headteacher Training Course
- Teacher Development and Management Systems (TDMS) Grade III Teachers' Course
- Teacher Development and Management Systems (TDMS) Outreach Tutor Training

- Kyambogo University Diploma in Primary Education (DEPE)
- Makerere University Bachelor of Education (External)
- Makerere University Bachelor of Science (External)

The questions also gave the respondents opportunity to indicate any other programmes the respondents may have participated in. Unfortunately, this latter question to the respondents did not have a time limit so a number of programmes including those that were run prior to 1990 were also listed, for example Basic Education in Rural Development (BEIRD) INSTEP, Upgrading of Grade II Teachers' Course. Also, there seem to be variety in the understanding of what constitutes DE. For example, a number of respondents indicated participation in the Diploma in Primary Education (DEP) run through the National Teachers' Colleges. However, this is a programme that depends entirely on residential sessions for the teachers during the school holidays. While the students are away, there are hardly any study activities and neither are students given any study materials. Nevertheless to many, this programme is being taken as a distance education programme. It was difficult to verify this because of failure to access the initial proposal for the establishment of this programme. The same applies to workshops run at the Teachers' Resource Centres. Some of these were **on** distance education but not **by** distance education. In addition a few non-teacher education programmes were also listed. Table 6.1 gives the frequency of those who have participated in various teacher education programmes provided through distance education. A total of 182 students, 5 prospective students, 3 tutors and managers and 31 policy makers responded to these questions. It should, however, be noted that, from the results, some of the respondents have participated in more than one programme.

Table: 6.1 Frequencies of participants in Teacher Education programmes

Course	Students f	Prospective students f	Tutors & managers f	Policy makers f
B.Ed & Bsc (Ext) MUK	182	0	35	13
TDMS Headteacher	31	1	6	10
DEPE Kyambogo	23	0	6	8
TDMS Grade III	10	3	6	10
NITEP	7	2	1	4
TDMS Outreach	7	0	5	5
MITEP	2	0	2	4

The following is a list of the various other programmes in which respondents have participated.

- Bachelor of Education (External) - Mukono University
- Basic Education in Rural Development (BEIRD)

- Certificate in Distance Education - Kyambogo University
- Diploma in Primary Education - National Teachers' Colleges
- In-Service Teacher Education Programme (INSTEP)
- Dip Special Education Uganda National Institute of Special Education
- Upgrading of Grade II teachers
- Olympic Leadership Course
- Resource Centre workshop

As far as positions held in these programmes is concerned, majority of the students in the study have participated in these programmes as students, whereas the policy makers and the tutors and managers have participated in these programmes as tutors, trainers, writers, and reviewers; with the exception of three policy makers who have participated in the B.Ed (External) as students.

All the participants in this study were asked to identify the strengths and weaknesses of these programmes. The strengths identified will now be discussed.

6.3 STRENGTHS OF THE TEACHER EDUCATION PROGRAMMES IN UGANDA

6.3.1 Introduction

Each of the teacher education programmes that have been delivered by distance education in the country has strengths and weaknesses. So respondents were asked to reflect on the programmes in which they may have participated and try to identify what to them were the strengths of these programmes. It is important to identify what is viewed as strength, or good in a programme, because then providers of distance education can work towards strengthening or providing for these elements. Also, the guidelines provided in chapter eight for the provision of INSET for secondary school teachers in Uganda have been informed by what has been identified here as strengths of programmes.

A total of 150 students, 4 prospective students, 23 policy makers and 30 tutors and managers responded to the question requiring them to identify strengths of the programmes in which they had participated. See items 13 in the interview schedule and questionnaire for tutors & managers' and item 14 in all the other questionnaires (appendices II –VI). The strengths of distance education teacher education programmes (in which the members of the study sample had participated) were grouped and categorised according to:

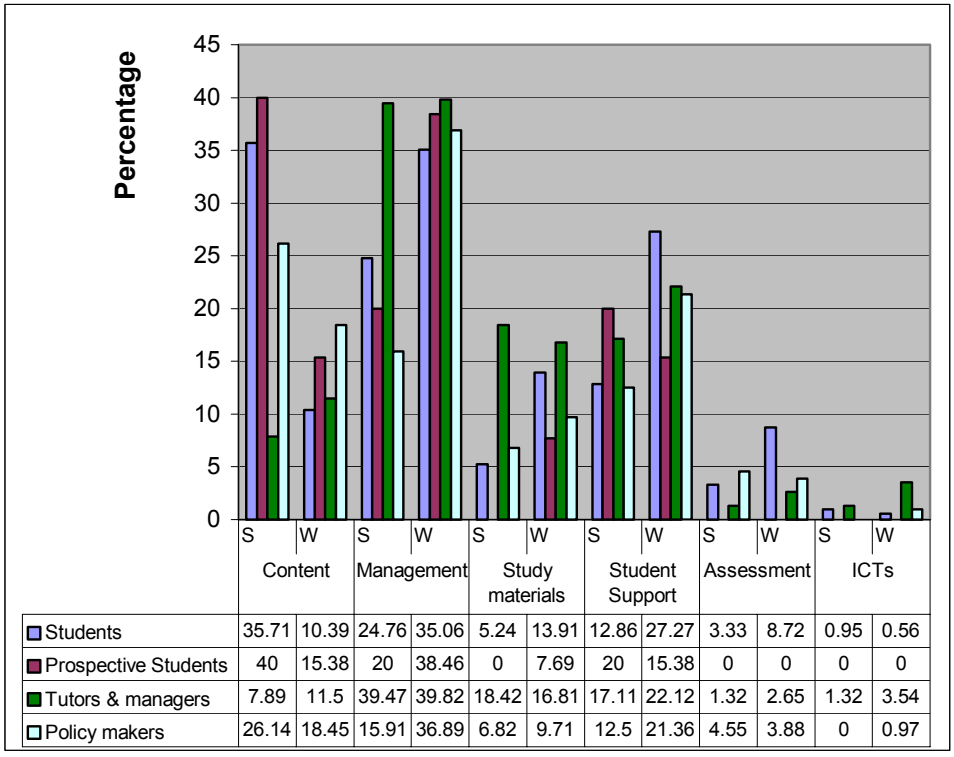
- *Content of the programmes*. The quality of any teacher education programme is partly dependant on its content.

- *Management and administration of the programmes.* Distance education institutions perform a helping function and there are often many persons and activities to be managed, so management and administration of programmes is definitely important (Peters 1994:118).
- *Study materials development and provision.* No distance education programme can run without study materials regardless of the media used (Keegan 1996:130, Robinson 1996:7, Robertshaw 2000:2).
- *Students support services in the programmes*. Like study materials, these are also very central in any distance education programme. (Keegan 1996:130, Robertshaw 2000:2)
- *Assessment and examinations in the programmes*. Nearly all the teacher education programmes discussed are award-giving programmes and hence, assessment and examinations were important.
- *Integration of ICT in the programmes.* The growth and development of distance education has been closely associated with the technology of the time and technology is important for purposes of bridging the distance between the learners and the institutions (Amundsen 1996:67, Epper 2001:7, Garrison, 1996:17, Paul 1990:122, Tschang and Senta 2001:6).
- *Other strengths*

These categories were identified as a result of trends identified in the responses and also because these are the major sub-systems in distance education.

Figure 6.1 gives a distribution of the scores given to the responses on strengths and weaknesses of the teacher education programmes run by distance education. Each of the strengths identified will now be described in the next sub-sections. The weaknesses will then be discussed later in section 6.4

Figure 6.1: Strengths and weaknesses of Teacher Education programmes



	Content		Management		Study materials		Student Support		Assessment		ICTs	
	S	W	S	W	S	W	S	W	S	W	S	W
Students	35.71	10.39	24.76	35.06	5.24	13.91	12.86	27.27	3.33	8.72	0.95	0.56
Prospective Students	40	15.38	20	38.46	0	7.69	20	15.38	0	0	0	0
Tutors & managers	7.89	11.5	39.47	39.82	18.42	16.81	17.11	22.12	1.32	2.65	1.32	3.54
Policy makers	26.14	18.45	15.91	36.89	6.82	9.71	12.5	21.36	4.55	3.88	0	0.97

S – Strengths W – Weaknesses

6.3.2 Content of the programmes

According to Verduin and Clark (1991:125) the content of the subject is important in distance education because the nature of the content will determine the competencies that a learner will need to study the subject. Also, knowledge of subject matter for teachers is taken as one of the key competencies (Robinson and Latchem 2003a:10) so it is important to establish what the learners on teacher education programmes say about the content of the programmes that have been run. According to the results received on this question, a number of the respondents believe that the content of the teacher education programmes was one of the strengths. Out of the responses given on strengths and as illustrated in figure 6.1, these were 35.71% of those given by students, 40% of those by prospective students, 26.14% by policy makers, and 7.89% by tutors and managers. The specific areas of the content strength identified were to do with the content coverage of the programmes, relevance of the content and the fact that new programmes were introduced in the system.

The programmes enabled learners acquire a variety of knowledge and skills building on what was already known. For example, according to one of the students, 'these

programmes build capacity for the work we are supposed to do'. One education officer also said, 'helped build up a culture of reading amongst the students in the programmes'; and another officer said, 'helped many acquire "life skills" like self control, time management and discipline'.

In view of some of the study participants, the teacher education programmes were relevant because these programmes gave the learners the knowledge and skills they needed to carry out their responsibilities. For example, while commenting on the Headteacher Training course, one education officer said, 'TDMS introduced a new managers' course providing useful managerial skills – bridged a gap, since there was no Headteacher Training Scheme before'.

These views reiterate one of the major functions of INSET, which is to improve the teachers' knowledge and skills in their teaching subjects and in pedagogy (Bagwandeen and Louw 1993:1, Dove 1986:224, Garden 1998:226, Iredale 1996:15, Robinson and Latchem 2003b:31). For example, MITEP and NITEP trained the untrained teachers, most of whom had had low secondary school education. Improving their subject knowledge was therefore vital.

In addition, new programmes that were not on offer before were introduced into the education system. For example, the Headteacher Training course, the recently introduced Diploma in Special Education.

From these responses, the study participants regarded the content of a programme as important and teacher educators therefore need to pay close attention to the content of the programmes that they offer. For as Fraser (2001:59) argues, low scores or grades in the subject matter *'…will almost certainly lead to poor teaching'.*

6.3.3 Management and administration of the programmes

Management and administration is one of the functions of a helping institution and in this study, the respondents identified this as one of the strengths of the teacher education programmes that have been run in Uganda by distance education. The scores registered in this case were 24.76% of the student responses, 20% of the prospective student responses, 15.9% of policy makers and 39.47% of tutors and managers. See figure 6.1. A variety of reasons were put forward to illustrate the strength in management and administration of the teacher education programmes.

The programmes reached many students, thus increasing access to education. Also, these programmes were flexible and allowed students to study as they work. For example, one education officer said, '…INSTEP, MITEP and NITEP did not take teachers away from the classroom'. This is in agreement with what Robinson (1996:6) says as one reason for the popularity of using distance education to train/retrain/upgrade teachers; a point reiterated by other authors like Moore (1996:29), Peters (1994:227, 1996:46), and Verduin and Clark (1991:4-5). Teachers are able to study as they work and schools are not depleted of teachers.

In addition and in relation to flexibility, it was pointed out that some of the programmes allowed students to work at their own pace. 'B.Ed programme allowed students to work at their own pace when it was a four year programme'. Holmberg (2001:21) in his theory of Guided Didactic Conversation/Theory of Teaching-Learning Conversations emphasised the importance of learner autonomy and the need for the learner to be able to take control of his/her own learning and thereby learn at his/her own pace. This is the issue being raised here as a strength of some of the programmes that have been run, although none of the programmes run had absolute flexibility. Each of them had deadlines that Holmberg (2001:21) regarded as unacceptable.

Another reason for saying that the management and administration of the programmes was a strength is because some of the programmes had adequate funding. For example, one of the education officers said that MITEP had sufficient funding whilst another said 'external funding helped DEPE take off faster'. Another respondent also said that NITEP was cheaper to government. It is, however, worth noting here that all the programmes cited as having had good funding relied on external funding. Programmes that depend on student fees are more likely to face financial challenges especially in poor countries where learners are unlikely to afford high fees. Nevertheless, it is vital that a programme have adequate funding.

6.3.4 Development and provision of study materials for Teacher Education programmes

Since in distance education students study most of the time on their own, study materials development and provision is a very important function of the providing institution. Study materials, regardless of the technology used to deliver the material, is therefore central to distance education, because study material is one way in which the distance between the learners and the institution/tutors is bridged (Keegan 1996:130, Robinson 1996:7, SAIDE 1996:21).

According to the responses given by those who answered this question and as illustrated in figure 6.1, (5.24 % of student responses, none by prospective students, 6.82% of policy makers', and18.42% of the tutors' and managers' responses) study materials development and provision is one of the strengths of teacher education programmes. Some of the reasons put forward for saying so are:

- Study materials were made available to students. For example, 'MITEP had study materials for all courses'. Also that, some of the study materials developed for distance education teacher trainees were used by other teacher trainees including those on internal programmes.
- Some of the programmes used workshops to train writers, to carry out writing, reviewing and editing study materials so '…as a result, high quality study materials were produced…' This seems to reflect the use of teams that Rowntree (1986:19 – 23) says is one option that can be used for the development of study materials so as to ensure high quality study materials.
- The language used in the study materials ensured user friendliness and readability of the materials (Holmberg 1986:108-111, 1995b:47, 2001:38-41, Rowntree 1986:58)

The respondents in this study therefore believe that study materials can be a strength in a programme if the study materials are available to the students, are relevant and reader friendly and are of high quality. Bridging the distance between students and the institution is critical in distance education programmes, and study materials are one way of doing so but the study material should be designed in a way that will promote interaction (Keegan 1996:130, Moore 1996:25, Rowntree 1986:11 –13). It is therefore not a question of making available anything but ensuring relevance and high quality of the study materials.

6.3.5 Student support services in the programmes

In distance education, the institution has a support role;(Holmberg 1986:110, Keegan 1996:118) therefore, student support is important for the success of any distance education programme. Keegan (1996:131) actually identifies student support as one of the key sub systems in distance education which every institution should have.

One of the strengths identified in the different distance education teacher education programmes that have been run in the past was their students support services. According to the results obtained on the strengths of these programmes, the scores were, 12.86% of student responses, 20% of prospective students responses, 17.11% tutors' and managers', and 12.5% policy makers'. See figure 6.1. To them, the evidence of this strength was in:

- The running of face to face sessions
- Student study group meetings that were held
- Access to library services
- Opportunities that students had to interact with other students and with their tutors.

A little will now be said about each of these.

The teacher education programmes run face-to-face sessions. These are important for addressing the problem of isolation often faced by distance education learners. In these sessions, students are supposed to have opportunity to discuss difficult concepts, receive feedback and interact with the tutors and other students. Face to face sessions are therefore important for reducing isolation, enabling learning and providing opportunity for social interactions (Department of Distance Education 2000:2, Holmberg 2001:39, Robinson 1996:10, Robertshaw 2000:2). These sessions should also be used to address student problems and helping them develop skills in interpretation and discussion of concepts (O'Shea and Downes 1997:64).

Some students in the study were also concerned about where the face-to-face sessions are held, for in the words of one student, 'regional centres reduce pressure and costs…' Face to face sessions held at the regional centres are less costly to students because the service will have been taken nearest the students.

Student support services, especially student group meetings, offered the learners opportunities to interact with one another. These self-help groups as Robertshaw (2000:3) argues, are important for *'peer tutoring'.* Students are able to support one another in these groups. In the words of one education officer while talking about NITEP, 'students were able to network and support each other'; and yet another, 'TDMS had peer group meetings.' In relation to this, one student confessed that the student group meetings and face-to-face sessions enabled him to make new friends.

Some of the respondents also reported that there is access to good library facilities in the programmes. Every institution of learning needs a good library and students in the institution should be able to access the library. Some of the programmes run in the country enabled students to access library facilities.

Student support services are therefore, according to the respondents in this study important because of their role in overcoming isolation. In their report on distance

education in South Africa, (SAIDE 1996:22) identified students support as one of the components of a well functioning distance education system.

6.3.6 Assessment and examinations in the programmes

Most of the teacher education programmes identified in the study were credit programmes where certificates were issued on successful completion of the programmes. Also, assignments give learners opportunity to reflect on their experiences (Manning 2001:61). In this study, a few students (with 3.33 % of their responses) and tutors and managers (with 1.32% of their responses) were of the view that assessment and examinations is one of the strengths of the programmes that have been run. Figure 6.1 graphically represents these strengths and weaknesses. The respondents put forward a number of reasons as evidence of this strength.

According to some of them, continuous assessment 'forced' students to study. Continuous assessment is in this respect serving a much greater role than only assessment; it is serving as a study tool, motivating students to study. Robinson (1996:11) argues that assignments can be used to link theory to practice and can also be used to encourage learners to reflect on their work. Besides this, the respondents also pointed out that the learners in the distance education teacher education programmes were '…more comprehensively assessed than those in internal programmes (as a result of continuous assessment)'.

In some of the programmes reviewed in chapter two and three, for example MITEP, NITEP and TDMS the distance learners sat the same examinations as internal programmes and this was viewed as strength. Since the students in both programmes sat the same examinations and obtained the same qualifications, the likelihood of discrimination against the distance learners is minimised. In a situation where the public has reservations on distance education graduates, a certificate that stipulates that the programme was studied by distance could lead to discrimination.

Ultimately, the confidence that the public is likely to have on a programme will partly emanate from how rigorous and comprehensive its assessment and examination system is.

6.3.7 Other strengths identified

Respondents also identified other strengths of the different distance education teacher education programmes and these are:

- The programmes opened up access to those who would perhaps have not gained the opportunity to do so. In the words of one respondent, 'the programme gave opportunity to many… for example many women with families'. This is particularly significant since distance education is believed to open up access to many, especially the disadvantaged (De Wolf 1994:1558, Holmberg 1986:30, 1995b:13, Rumble 1992:19).
- TDMS led to improvement in the management of schools as a result of the Headteacher Training Programme. This is related to what was raised about the content of this programme as discussed in section 6.3.2.
- The programmes gave teachers opportunity to upgrade. For example, 'B.Ed became a path for many to further education – many B.Ed graduates enrolled for Masters programmes'. Distance education has been used in a number of programmes to enable teachers upgrade (Perraton 2000:70, Robinson and Latchem 2003b:33) and this seems to have been the case in Uganda as well.
- The programmes also led to tutor enrichment because of the opportunities they give for tutors to meet other educators and to gain additional skills.

6.3.8 Conclusion

A number of teacher education programmes have been run by distance education in Uganda and in some areas these programmes have excelled and these areas of excellence have been identified. Providers of distance education programmes should therefore take careful note of these areas of excellence and advantages and strive to reinforce or incorporate them.

However, in spite of these areas of strength, there have been a number of weaknesses and the next sub sections will focus on this. See figure 6.1 for the distribution of responses given in relation to each of the weaknesses identified. Note also that, the same categories were maintained for strengths and weaknesses and this figure gives a graphic comparison of this distribution.

6.4 WEAKNESSES OF THE TEACHER EDUCATION PROGRAMMES IN UGANDA

6.4.1 Introduction

Just as it is important to identify strengths so as to keep up with whatever is good, identifying weaknesses also helps because then plans can be made to improve. In this study, respondents were also asked to indicate how in their view improvements could be made and these will be discussed alongside each of the weaknesses identified. A total of 150 students, 4 prospective students, 23 policy makers and 30 tutors and managers

responded to the question requiring them to identify weaknesses of the programmes in which they had participated. See items 14 in the interview schedule and questionnaire for tutors & managers and item 15 in all the other questionnaires (appendices II – VI).

To discuss the weaknesses of the distance education teacher education programmes, the same categories used in discussing strengths were used and these are:

- Content of the programmes
- Management and administration of the programmes
- Study materials development and provision
- Students support services in the programmes
- Assessment and examinations in the programmes
- Integration of ICT in the programmes.
- Other weaknesses

6.4.2 Content of the programmes

The content of teacher education programmes has been criticised for being too theoretical, irrelevant in some instances and often overloaded (Dove 1986:244, Odaet 1985:45). Unfortunately these same criticisms were raised concerning the content of the different distance education teacher education programmes that have been run in Uganda. The responses received with regard to this and as illustrated in figure 6.1, (10.39 % of those by students, 15.38% of those by prospective students, 18.45% by policy makers, and 11.50% by tutors and managers) indicated that the content was often weak. The specific areas of weaknesses cited are:

- Irrelevant Curriculum
- Theoretical Programmes and
- Inadequate coverage

Each of these will now be discussed.

a) Irrelevant curriculum

According to the respondents, the content of the programmes is not always relevant. For example, one tutor while referring to the B.Ed (External) said, 'curriculum is not appropriate for primary school teachers' while one education officer said that primary school teachers specialise and '…yet they are expected to continue teaching all the subjects in the primary school'. Primary school teachers in Uganda are expected to teach all the subjects in the primary school curriculum. However, in the INSET diploma and B.Ed programmes, the students specialise in two subjects of their choice, yet the

schools still expect them to continue teaching all subjects. It is for this reason that this is identified here as a problem.

Related to irrelevance is the problem of theoretical programmes that have little emphasis on skills that teachers actually need in the field. For example, INSET does not seem to have met the country needs for science and language teachers; so as one officer said, 'distance education has not helped these areas get more teachers'.

b) Theoretical programmes

According to the respondents, the curricula of the distance education teacher education programmes 'lack practical application of what is learnt'. Teachers therefore learn a lot of theoretical knowledge but do not gain the much-needed skills. One education officer for instance said that the module on Financial Management in the Headteacher Training programme, did not equip the headteachers with skills. So some headteachers continued to manage their finances as they had done before. In addition, these programmes were accused of '…emphasising certification with very little application of skills'. These criticisms are related to what is raised by a number of writers on teacher education and distance education (Bates 1994:1577, Dove 1986:244, Garrison 1996:12, Henri and Kaye 1993:27-28, Holmberg 1993:331, Odaet 1985:45).

In section 6.6.8 the question of whether B.Ed (External) helps teachers acquire core competencies is discussed. The weaknesses identified here seem reflected in the views about B.Ed (External) and the teachers' competencies.

c) Inadequate coverage of the teacher education curriculum

Another problem raised with regard to these programmes is that the workload is heavy so, as a result, there is inadequate coverage – a 'surface scratching' as one student said and the course outlines are not fully covered. This is why as one education officer said 'many graduates of B.Ed have problems handling 'A' Level. Some have been rejected in schools'. In the words of another officer, 'teachers are inadequately trained and are being sent to schools to "survive"! Spirit of "survival" is killing the education system'.

These criticisms are very troubling because one of the major reasons for INSET is to help strengthen and refresh the teachers' knowledge and skills (Bagwandeen and Louw 1993:1, Dove 1986:224, Iredale 1996:15). But if now these INSET programmes are not accomplishing this, then there must be a re-examination of the syllabi and methods

being used in INSET. Promoting a spirit of "survival" as one officer said will certainly destroy the school system and the programmes themselves.

d) Improvement of the content of Teacher Education programmes

The study participants were unfortunately not specifically asked to show how they think the content of the programmes can be improved. However, in response to a question on how distance education programmes can meet teachers and school needs, the responses given are indicative of what was believed as ways of improving the content of the programmes. According to those who responded to this question, it was suggested among other things that it is imperative to:

- 'Design programmes according to identified needs'.
- 'Identify gaps and design programmes that fill these gaps'.
- Ensure 'programmes designed related to the needs of the school'.

To improve content therefore, it is critical that needs and knowledge/skill gaps are identified and programmes designed should meet these needs. Society and schools are in constant state of flux and so the needs of the teachers are also likely to change and these should therefore be met (Aspland and Brown 1993:6). In so doing, the programmes would then be relevant and less theoretical.

6.4.3 Management and administration of the programmes

As a weakness, management and administration of programmes recorded the highest number of responses 35.06 % by students, 38.46% by prospective students, 36.89 % by policy makers, and 39.82% by tutors and managers. See figure 6.1. Management and administration of any programme is critical for its success, so if these programmes have problems in their management and administration, how effective then are they in meeting their objectives?

Some of the criticisms raised are that:

- Inadequate funding and/or dependence on donor funding
- Centralised administration
- Huge enrolments
- Poor planning and coordination of programme activities

Each of these criticisms will now be discussed.

a) Inadequate funding and/or dependence on donor funding

Distance education is believed to be more cost effective but there are other factors that ought to be taken into account (Rumble 2001a:73). Funding is vital so as to develop study materials, and set up effective student support services and as Perraton (2000:137) says, where student numbers are very low, and a high level of student support provided, distance education can be more costly. So funding is vital and can be a challenge.

In this study, the respondents were of the view that one of the weaknesses of some of the teacher education programmes that have been run is that there is inadequate funding for some of them, for example the B.Ed (External) and dependence on donor funding and expatriate staff in the case of TDMS. As a result, staff are inadequately remunerated and inadequate services provided; one student for example said there was 'lack of funding for tutorials at the TDMS centres…'

Also, some of the students were of the view that the programmes were costly. One student said, 'costly in terms of fees, resources and energy'. Makerere is very costly financially and other unnecessary fee called late registration fee charged on the students'.

So clearly, funding is one of the problems facing teacher education programmes that are running in Uganda. As Bates (2000:122) says, some of the distance education activities are often under-budgeted or not budgeted for at all. Whilst the high costs of the programmes could easily become a barrier to enrolments – cutting off the very people distance education is meant to help.

b) Centralised management and administration

Most distance education programmes have student populations scattered across wide areas and in circumstances where the students are expected to study on their own for most of the time, services must therefore be provided nearest to them. For as Levine (1993:4) as quoted by Rumble (2000:1) says, students want universities of convenience. This cannot be achieved through highly centralised and bureaucratic administrative structures and systems. Unfortunately this is one of the weaknesses of some of the teacher education programmes in the country. According to some students because of bureaucracy students do not receive prompt and proper support. Manning (2001:61) says that this is one of the challenges that the Open University UK also faces.

c) Huge enrolments in the programmes

Distance education is supposed to be popular because of the potential that it has to serve larger numbers than is normally the case in internal programmes (Holmberg 2001:17). However, in Uganda, it seems the programmes are registering high student numbers without commensurate staff and facilities to efficiently serve the students. For example, it was pointed out that the B.Ed (External) admits too many students and yet the staff handling students is inadequate in both numbers and abilities. As one student put it, 'huge enrolment numbers that have overwhelmed the existing facilities'. Another said that because of huge numbers of students and inadequate staff, 'students are subjected to very long and humiliating queues during registration…'

So the very issue that is supposed to be used to justify distance education is becoming a source of disrepute of distance education. Numbers admitted should not be for the sake of it but student numbers must be admitted in accordance with the institutions' capacity to manage the numbers. Institutions should not as, Perraton (2000:194) says, take students money in advance but later spend less of this money on tuition. When this happens then institutions will be guilty of taking students' money but investing little on ensuring quality teaching/learning environment.

d) Poor planning and coordination of programme activities

Peters (1994:113) says that rationalisation is vital in distance education and this is achieved through planning, organisation and division of labour. The various teaching functions are split up and various individuals or groups for example write, edit, review, produce and distribute study materials. For this to run smoothly, there must be careful planning and coordination.

However, in this study, some of the respondents expressed a fear that these programmes were poorly planned and poorly coordinated, resulting in confusion and frustration for both students and staff. One of the students for instance said, 'sometimes these programmes interfere with normal school programmes'. Another said, 'poor coordination, some lecturers are timetabled without their knowledge especially at the beginning'.

Closely related to this is the problem of inadequate follow-up of students. According to one education officer, some of the teacher education programmes had 'weak monitoring and follow-up of students'.

To run the TDMS programmes, a cross section of education staff from the Ministry of Education and Sports, Teachers' Colleges and from the districts were all involved. However, this was seen as a problem because:

- 'In TDMS, the local community leaders who are meant to work with teachers are themselves of low education'.
- 'TDMS had a parallel management system that involved the PTCs but did not actively involve the district education offices'.
- 'District Inspectors who were expected to inspect and supervise the headteachers were not trained' in the areas the headteachers were trained in.

So, TDMS seems to have attempted to involve other stakeholders in the management of the programme but this unfortunately created problems because of poor planning and poor coordination.

e) How to improve the management and administration of Teacher Education programmes

Respondents were asked to identify strategies that could be used to improve management and administration of teacher education programmes (Interview schedule and questionnaire for tutors & managers' item 15a and all the other questionnaires item 16a – appendices II –VI). See also appendix VII. A number of strategies were recommended and out of all the responses given to this question, the following strategies had the highest scores:

- Restructuring and reorganising institutions and programmes with 29.12% of the responses by students, 36.36% by prospective students, 40.35% by policy makers and 25% by tutors and managers.
- Recruiting quality staff, training and retraining with 25.96% of the responses by students, 18.18% by prospective students, 26.32% by policy makers and 35% by tutors and managers.
- Funding and resource allocation with 7.02% of student responses, 27.27% of prospective students', 15.79% of policy makers' and 13.33% of tutors' and managers'.
- Public relations with 4.91% of the responses by students, 9.09% by prospective students, 1.75% by policy makers and 10% by tutors and managers.
- Communication and information flow with 4.91% of the responses by students, none by prospective students, 1.75% by policy makers and 5% by tutors and managers.

Each of these strategies will now be briefly discussed.

Restructuring and reorganising institutions and programmes

To deal with some of the problems faced in the management and administration of teacher education programmes, it was recommended that the institutions providing these programmes and the programmes themselves should be restructured and reorganised to fully cater for the needs of the students and the demands of distance education. When SAIDE (1996:92) carried out a national audit of teacher education offered at a distance in South Africa, one of their findings was that most of the institutions were dissatisfied with their programmes and saw the need for restructuring of institutions and programmes so as to offer quality distance education.

This seems to be the recommendation of the respondents in this study. Some of the recommended strategies for restructuring and reorganising institutions and programmes are now briefly discussed here.

First that there should be 'decentralisation of '…all services and their management e.g. registration, face-to-face, examinations'. This would ensure that the services are taken nearest the students and it would also reduce congestion at the institutions' main campuses. There should also be more 'bottom-up approach to management' involving various stakeholders in the decision making processes.

Next that there should be 'division of labour because some staff in the Department seem overloaded'. According to Peters (1994:109) division of labour as a form of rationalisation can lead to higher outputs which is crucial in all enterprises. Related to this, one tutor recommended that there should be more 'streamlined staff establishment…'

This implies that the 'programme should operate on its own' as a distance education programme without conforming to internal programme policies. This illustrates the problem that Bottomley and Calvert (2003:1) identify when they say, 'in most dual mode institutions policy is based on the needs of on-campus students…' The distance education programmes being run in dual mode institutions are handicapped by policies and structures that were initially set up for internal programmes. To effectively and efficiently run the distance education programmes, such institutions need to be reorganised to accommodate the needs of the distance education students and programmes.

As far as restructuring programmes is concerned, it was suggested that:

- Institutions should 'run school based INSET programmes so that these programmes are more relevant'
- 'Introduce bridging courses for the weak students before starting the teacher education programmes'
- 'Distance education programmes should take longer than the internal programmes to ensure enough time for coverage of curriculum'

Student needs, demands and requirements of distance education programmes require structures that can appropriately serve these demands thus the need for restructuring and reorganisation of institutions and programmes.

Recruiting quality staff, training and retraining

To ensure efficient information flow and dissemination and for division of labour to lead to higher outputs, there must be high quality staff. So in the view of the respondents in this study, it is vital that:

- Institutions 'recruit personnel with relevant qualifications and background in mounting distance education programmes. Specialised and committed staff.'
- There should also be 'training and retraining of all staff in the programme' and 'close supervision of staff so that they can understand students and deliver better services'. According to one student this can be done by organising 'refresher courses, seminars/workshops'.
- 'Only persons with strong academic background should be facilitators and moderators of the programme'.

It is clearly important to recruit staff that have relevant academic and professional qualifications, but there must also be deliberate effort to provide training on distance education so that the staff appreciates what is required of them in distance education programmes (Bottomley and Calvert 2003:3). For example, a lecturer recruited to serve as a tutor in distance education programmes must be given orientation on what is expected of him/her in distance education programmes. In addition, according to a small group of students and to one tutor, the staff should be motivated and paid in time for work done.

Funding and resource allocation

In the view of the respondents, the programmes are not well resourced and therefore need improved funding. This finding concurs with Robinson's (1996:15) conclusion that there is lack of understanding of the cost needs in distance education and so often this

'…affects the resourcing and quality of the distance education programmes'. In addition, the programmes need:

- Additional equipment and facilities
- Expansion of infrastructure
- To 'plan programmes in affordable terms' and in the words of another official, avoid donor-driven projects for these end when external funding is withdrawn or comes to an end'.
- For 'government subsidies for teachers' to ensure that their fees and other costs are met. In relation to this in particular, some students recommended that programmes revisit fees that students are charged.

Although the respondents recommended that the programmes revisit fees to ensure affordability and that programmes have more resources and facilities, and apart from suggesting that government increase subsidies, they did not suggest additional sources of funding.

Inadequate funding and resources for the distance education programmes is a problem that is likely to lead to poor provision of services (Robinson 1996:16-17) and therefore low quality programmes.

Communication and information flow

One of the problems earlier identified is poor information flow and so to address this, it was recommended that deliberate effort should be put towards improving information flow. For example, according to one student, the institutions should 'give students clear information on administrative structures and officers in the department and university'. In this way confusion would be minimised. One education officer suggested that programmes be mounted to provide information that will help to change attitudes on distance education.

Public relations

Some of the tutors suggested that it is necessary to improve public relations because some of the staff on B.Ed (External) are poor in this. To do so, it was suggested that the young administrators especially be given orientation and skills in handling the public and adult students in particular.

Besides these suggestions to improving management and administration of teacher education programmes, the following strategies were also recommended albeit by smaller proportions of the respondents.

- Coordination of programme activities with 2.46% of the responses by students, 3.33% by tutors and managers. Distance education activities are wide and involve a wide cross section of people and with student populations often scattered across wide areas, to ensure smooth running of all these activities, there is need for careful coordination.
- Monitoring and follow-up of programme activities with 3.86% of the responses given by students and 7.02% by the policy makers.
- More flexible programming with only 1.05% of the responses by students, 9.09% by prospective students, 1.75% by policy makers and 1.65% by tutors and managers. Flexible programming would help cater for the needs of the learners of the tutors.

Management and administration of the teacher education programmes that have been provided through distance education in Uganda has not been entirely efficient and effective and therefore needs to be reviewed. Some strategies have been suggested in this study and these need to be carefully considered.

6.4.4 Development and provision of study materials for Teacher Education programmes

In section 6.3.4 the importance of study materials was discussed. However, the respondents also raised weaknesses with study materials development and provision in the teacher education programmes that have been run in the country. From the responses received on this, tutors and managers had the highest scores with 16.81% of all their responses; students with 13.91 % of their responses, then policy makers with 9.71%, and finally prospective students with 7.69%. See also figure 6.1. The major weaknesses cited with regard to study materials development were:

- The slow pace of study materials development and poor provision.
- Poor quality of the study materials

Each of these will now be briefly discussed.

a) Slow Pace of study materials development and poor provision

Study materials are central to teaching and learning in distance education programmes and ought therefore to be provided in time. According to Robinson (1996:10), one of the criteria for a successful distance education system is that all learners should be

provided *'with especially designed learning materials (whatever the media) in time for learners to make use of them'.* However, according to the respondents in this study, this is not always the case. Sometimes the study materials are delivered late or not at all. This is inappropriate because it is likely to inhibit student participation and performance in the programmes.

Related to this is the problem of inadequate reference material to 'supplement modules given'. According to Rowntree (1986:11 –13), the study materials given should serve all the teaching functions. However, even with this, there ought to be supplementary reading materials and this has not been well done in the teacher education programmes that have been run. This is likely to lead to surface learning that distance education has been accused of (Bates 1994:1577, Garrison 1996:12, Henri and Kaye 1993:27-28, Holmberg 1993:331, Paul 1990:85, Perraton 2000:12).

b) Poor quality of the study material in the teacher education programmes

The quality of the study materials that were used has been queried. For example, there are fears that there may be plagiarism in the materials being developed. As one official said, '…it is sometimes difficult to ascertain whether there is no plagiarism by the course writers'. This is a critical issue because it strikes at the very heart of academic integrity of both the individual writers and the institutions of learning. Study materials developed for any distance education programme ought to meet all the requirements of academic rigour and excellence. It should not be an excuse for writers to plagiarise other works.

c) Improving study materials development and provision in teacher education programmes

Having identified weaknesses in the development and provision of study materials in the teacher education programmes that have been run in the country, respondents were asked to suggest strategies for improvement. These questions appeared in items 15b in the interview schedule and questionnaire for tutors & managers' and as item 16b in all the other questionnaires (appendices II –VI). See also appendix VII. To deal with the weaknesses identified, it was recommended that:

- Programmes ensure delivery, availability and access to study materials with 46.94% of the responses by students, 75% by prospective students, 31.91% by policy makers and 16.07% by tutors and managers.
- Programmes improve on the production and acquisition of study materials with 29.80% of the responses by students, none by prospective students, 21.28% by policy makers and 19.64% by tutors and managers.

- More funding should be put aside for the production and provision of study materials. This was the view of some of the students with 6.53% of their responses, no responses on this by prospective students, 4.26% policy makers' responses and 19.64% tutors' and managers'.
- There is integration of technology and diversification of study materials. This was the view of some of the students with 6.94% of their responses, 12.50% of prospective students' responses, 12.77% policy makers' responses and 8.93% tutors' and managers'.
- Programmes ensure quality control of study materials being provided to students with 5.31% of the responses by students, none by prospective students, 12.77% by policy makers and none by tutors and managers.
- Staff involved in the production and distribution of study materials is trained/retrained and motivated with only 0.82% of the responses by students, none by prospective students, 6.38% by policy makers and 19.64% by tutors and managers.

In addition, the respondents were also concerned with the readability of the study materials. One tutor, for example said, 'study materials should reflect more of the distance learning style'; and one education officer said that there is need to 'review and simplify modules so as to make the modules more readable'.

Each of the suggestions for improving study materials development and provision will now be briefly discussed.

Delivery, availability and access to study materials

The concern here was with how easily accessible study materials are to the students. As already raised in section 6.4.4a study material is not easily accessible to address this anomaly, it was proposed that:

- Where the book bank system operates as in the case of Makerere University, the book bank should be well stocked. The book bank system of Makerere University is a system where departments through the library acquire core textbooks and these are then lent to students. In the Department of Distance Education, this collection includes study materials that have been especially produced for distance learners. See also section 6.6.5f for a further discussion of this. Also, the 'borrowing system should be revised to suit the students' interest. Reduce the rigidities involved in borrowing books' and 'closely monitor storage and lending system'.
- Institutions should decentralise the distribution of study materials and library services. According to the respondents, study materials should be distributed through centres

nearest the students; and district libraries/resource centres established through which students could access reference material.

- Sufficient study materials should be availed in the institution libraries and through the public libraries.
- Study materials should be distributed before the beginning of each semester.

The recommendations for improvement here concern prompt delivery, easy access and sufficient numbers of study materials. Failure to achieve this implies that one of the criteria for a quality distance education system is not fulfilled (Robinson 1996:10).

Production and acquisition of study materials

Production of study materials is a lengthy and tedious process which demands a lot of creativity and patience (Murphy 2000:1) and if not well handled could jeopardise the entire materials provision process. The concern is that study materials are not promptly produced so, to address this, it was recommended that:

- There should be more vigilance and reinforcement of the materials production departments
- Proper planning and time management so as to produce all the required study materials.
- Institutions provide favourable conditions for the writers to write the required study materials
- 'Editors should be fast and rigidly work according to schedules' and there should be 'speedy processing of authors' manuscripts'. Deadlines can be difficult to enforce and to keep but if the entire process is to be well managed, deadlines need to drawn and should be adhered to (Murphy 2000:3).
- 'Produce all modules for each subject'
- Stock the libraries with relevant books.

The challenge being raised here is for institutions to ensure that whatever study material is required should be produced or acquired in time for each semester and in quantities that are sufficient for the student numbers in the programmes.

More funding

According to a number of authors (Bates 2000:128, Berge 2001b:19, Orivel 1994:1572, Robinson 1996:20-27), distance education requires high initial investment for the production of study materials; unfortunately the programmes that have been run in Uganda have faced the challenge of adequate funding. As a result, some of them have not been able to produce all the required study materials. Also, where the study

materials have been produced, they have been too costly for the students. To address this, it was suggested that:

- The price of the study materials should be reduced and or subsidised. One student, however, suggested that the Ministry of Education and Sports should pay for all the study materials which should then be distributed free of charge.
- Institutions should solicit funds from donor organisations to construct structures and purchase books.
- With specific reference to the B.Ed (External), it was suggested that 25% of fees collected should be put aside for the purchase of textbooks.

A close examination of the recommendations reveals that the students, prospective students and policy makers gave the highest number of responses to improving delivery, availability and access to study materials. The tutors and managers on the other hand were more concerned about the production and acquisition of study materials. I think the difference here is a result of the students and prospective students and to some degree the policy makers looking at this issue as 'consumers' and are therefore more concerned with how they can access the study materials. On the other hand, the tutors and managers are looking at it from the perspective of 'provider' so are more concerned with the production of the study materials.

The institution should, nevertheless be concerned with both elements, meeting the needs of the tutors and managers as 'providers', and the students as 'consumers'.

6.4.5 Student support in Teacher Education programmes

Student support is central to the life of any distance learner (Keegan 1996:131, Robertshaw 2000:1, SAIDE 1996:115). Unfortunately, from the responses received on this question, a number of students, prospective students, policy makers, tutors and managers all believe that this was a weakness in the teacher education programmes. A number of reasons were given as evidence of this weakness; and as illustrated in figure 6.1, the scores were 27.27% of student responses, 15.38% of prospective student responses, 21.36% of policy makers' and 22.12% of tutors' and managers'.
The weaknesses of student support that were highlighted are now discussed in the next sub sections.

a) Poor face-to-face sessions

Face to face sessions are important but should be seen as support to students who should not be totally dependant on the sessions. Unfortunately, there seems to be a

culture of dependence on the face-to-face sessions that are in addition expensive yet poorly organised and run. Dependency to face-to-face sessions is a danger that Robertshaw (2000:4) identifies. Also, Robinson (1996:10) says that in a number of distance education programmes, face-to-face sessions are not always used effectively; because sometimes more and more face-to-face sessions are organised to cover up weaknesses in the system leading to higher costs per capita.

Another weakness identified was that in some cases the programmes did not have competent staff to provide support to students during the regional/centre face-to-face sessions. Therefore according to the respondents, the face-to-face sessions were:

- Brief and did not give students sufficient time to cover the course outlines. This complaint presupposes that without the face-to-face sessions the course outlines cannot be fully covered. This may be a reflection of weakness in the programmes and a dependence on face-to-face sessions.
- 'Face to face sessions are too packed and so students have little time to interact with tutors at individual levels'.
- 'Expensive because students have to support themselves during face to face sessions…'
- In TDMS programmes, 'coordinating staff does not have the capacity to offer academic support in all areas of the programme.'
- 'Dependence on face to face sessions reinforces lack of reading culture'. This criticism confirms what Robertshaw (2000:4) identifies in his writings.

b) Inadequate guidance and counselling

All the INSET programmes admit adults who are already working. Therefore in addition to the roles and responsibilities that they already have as adults (sometimes with families), and teachers, they now take on new roles and responsibilities as students. This is likely to create tension and therefore the need for guidance and counselling. Counselling should be integrated into the teaching/learning process and should not be reserved for students with problems only. Counselling should be part of the student support system (SAIDE 1996:74). Unfortunately, according to the results of this study, this is often inadequate and is poorly organised. For example, according to one education officer, some students suffer '…inferiority complex'. Such a student would require a lot of counselling to help boost morale and develop a higher self-esteem and self-confidence.

c) Poor communication, information flow and dissemination

Information flow and dissemination is an important element of student support. However, according to this study, this is not well done and as a result,

- 'It is difficult to communicate with lecturers in case of problems.
- There is 'poor, inadequate and inefficient communication'. As one tutor said, there are 'communication bottlenecks. Poor communication between students, tutors and the administration.'
- 'There is no adequate interaction between the lecturers and the students'.
- 'No opportunity to help students individually'.

If the communications space between the learners and the institutions is to be crossed, then teacher educators must work on improving communication, information flow and dissemination in the programme (Moore 1996:22).

To deal with weaknesses identified in student support, the respondents suggest a number of strategies as discussed in the next sub section.

d) Improving student support in teacher education programmes

According to the respondents who answered this question, the major strategies suggested for improving student support were:

- Better face-to-face sessions. There were 22.69% of the responses given by students on this, 9.23% of the policy makers' responses and 22.03% tutors' and managers'.
- More efficient library services with 21.92% of student responses, 22.22% prospective students', 10.77% policy makers' and 13.56% tutors' and managers' responses.
- Better communication and information flow with 10.38% of student responses, 11.11% prospective students', 12.31% policy makers' and 13.56% tutors' and managers' responses.
- Provision of guidance and counselling services and this received 7.69% of student responses, none of prospective students', 12.31% policy makers' and 11.86% tutors' and managers' responses.
- Better access to student support services with 10.38% of student responses, no responses on this by prospective students, 16.92% of policy makers' and 18.64% tutors' and managers' responses.

In addition to these strategies, a smaller proportion of respondents were also of the view that better student support services could be achieved if student group meetings were

improved, other technologies utilised for service provision and if staffing is improved through more and more committed tutors and support staff.

Each of these main strategies suggested will be briefly explained.

Better face-to-face sessions

As discussed in chapter two section 2.7.5 and chapter three section 3.6 all the teacher education programmes used face-to-face sessions as part of the study package. Section 6.3.5 also discussed face-to-face sessions as one of the strengths of the programmes. According to the respondents in this study, these sessions can be made better through:

- More careful planning and management of the sessions. This could be achieved by conducting all sessions during school and university holidays. This is unfortunately very difficult to achieve because schools and universities/colleges do not have common holidays. Universities for instance run on a semester system, while schools run on a term system. To hold face-to-face sessions during common holidays is likely to be extremely difficult if not impossible. A lot more thought would be required to restructure the sessions in such a way as to achieve this.
- Decentralised face-to-face sessions. In other words, the sessions should be held in regional or district venues and not centralised at the universities/colleges.
- More and regular face-to-face sessions. The problem though with this recommendation is that it could easily lead to higher costs since the more the face to face sessions *'…the higher the cost per capita, and the more it approximates to the costs of conventional teaching'* Robinson (1996:15).
- Secure and more permanent venues for face-to-face sessions. This seems to have been more applicable to the B.Ed (External) and according to one student, 'abrupt change of venues for face to face disrupts those from upcountry avoid this'.

More efficient library services

This suggestion is also related to what has already been raised and discussed in section 6.4.4c. The respondents in this study were of the view that library services should be more efficient and could be achieved through:

- Establishing regional/district libraries so as to ensure that this service is more easily accessible to the students.
- Equipping regional/district centres with relevant and up-to-date study materials.

- Utilise all the public libraries in the country and make available all the required study materials and reference materials through these libraries.

Better communication and information flow

In section 6.4.3 under management and administration of programmes, the problem of poor communication and poor information flow was raised and discussed. The same is true in the provision of student support services; students and staff need clear and prompt information. It was, for example, suggested that there should be improved publicity through '…newsletters, brochures, prospectus.' Also that other media is used. For example, one student suggested that, 'information to students upcountry should be passed through both the radio and mail system'.

Provision of guidance and counselling services

To address the problem of inadequate guidance and counselling, the respondents in this study were of the view that,

- Each institution establishes a counselling office. Makerere University for example has a counselling unit attached to the hospital and I believe this is why this service is not well utilised. There may be stigma attached to a counselling service linked to a hospital. A counselling unit attached to an academic department may be more 'acceptable'.
- Counsellors are identified and these should be available always to provide guidance and counselling to students.
- Students should be encouraged '…to open up'. One tutor also said, 'encourage students to consult their tutors before they sit exams'

e) Better access to student support services

This suggestion embraces all the others raised because it is concerned with overall access to all the services provided; and according to the respondents, this can be achieved through:

- Decentralising '…services to students [programmes, library services, face to face sessions etc] to reduce students travel costs'.
- Decentralising '…services to the regions and give the centres some degree of autonomy…'
- Opening up more centres and strengthening existing ones.
- Enriching '…resource centres, public libraries, TDMS centres, etc with relevant study materials'.

A close examination of the responses reveals that students, tutors and managers had higher scores for improved face to face sessions, the prospective students for availability of tutors and support staff while the policy makers had higher scores for better organisation and management of the students services. As mentioned in chapter two section 2.7.5, most of the teacher education programmes depend fairly heavily on face-to-face sessions and this I believe explains why more students, tutors and managers recorded the highest scores for face to face sessions.

6.4.6 Assessment and examinations in Teacher Education programmes

a) Weaknesses

Assignments are important because they can give learners opportunity to reflect on their learning experiences (Manning 2001:61). However, in this study, a small proportion of the study participants said that assessment and examinations was a weakness in the programmes and the scores were 8.72% of responses given by students, none by prospective students, 3.88% of those by policy makers and 2.65% by tutors and managers. See figure 6.1.

According to them, the take home assignments that students are given are open to cheating because it is difficult to ascertain that assignments are done by the distance education student himself/herself. One student for example said, 'assignments open to cheating. Some students give other people to write their assignments'. It is, however, worth noting that it is not only distance education students who do take home assignments. Many higher institutions of learning give students take home assignments and the same criticism could be raised for them as well. For how can a lecturer in an internal programme ascertain that each of the students in his/her class has not cheated in the take home assignment? I believe this is the challenge facing all higher institutions of learning. For example, according to Manning (2001:62), some tutors at the Open University UK are reported to have '…*frequently identified plagiarism as a problem'* among the continental western European students in their programmes.

In relation to assignments, there was also dissatisfaction with assignment turn around. According to some students, marking is not done promptly and so scripts are returned late; and even then the records are not well maintained.

The other problem with assessment and examination is the high failure rate, particularly with MITEP. High failure and dropout rate is a concern raised by many authors for, according to them, high failure and dropout rates reduce the efficiency of distance

education (Holmberg 2001:73, Keegan and Rumble 1982:228, Paul 1990:79, Perraton 2000:12).

b) How to improve assessment and examinations in Teacher Education programmes

To address the weaknesses that were identified in assignments and assessment, the respondents identified a number of strategies that could be used and these shall now be briefly discussed.

Ensuring standards, and promoting equivalence of standards

The scores on this were 41.89% of students' responses, 42.86% of the prospective students' responses 54.55% of policy makers' and 27.08% of the tutors and managers'. Assignments and examinations should be handled as part of the learning process and they should be set in a manner that will help the teachers acquire knowledge, skills and competencies that they need in the school setting. Assignments and examinations should not be for the sake of assigning grades only (SAIDE 1996:73). It is therefore important that assignments and examinations set for the distance education programmes are of high standard and that they meet the required standards. It is also important that these assignments and examinations are of comparable standards to equivalent internal programmes. This is critical for acceptance and validity of certificates given. To achieve this, a variety of options were suggested.

Assignments questions encourage creativity and originality. Also that the 'assessment should include practical application of knowledge and skills in the day to day activities of the school'. While discussing problems identified in the content of teacher education programmes in section 6.4.2, one of the weaknesses identified was that the programmes are theoretical. The suggestion of promoting creativity, originality and practical application of knowledge and skills would be one way of dealing with this problem and making training much more relevant and practical. Robinson (1996:11) for example argues that assignments can be used to link theory and practice and in so doing eliminate the problem of theoretical programmes and encourage students to apply knowledge and skills learnt.

Conduct more timed tests than the take home assignments since the take home assignments are open to cheating. In addition to this, it was also suggested that assessment methods used are diversified to include group assessment, oral examinations, take home examinations, and self-assessment. One official, however,

suggested that only timed tests be utilised. But, if assignments motivate students to study (see section 6.3.6) then eliminating take home assignments completely would ruin the opportunity assignments offer as a study tool.

To ensure same standards of assessment for internal and distance education students, these students should all '…sit the same examination.' However, whereas this is likely to lead to identical standards, it would raise the problem of rigidity in terms of deadlines and programming (Holmberg 2001:21). Equivalence of standards should instead be the objective rather than aiming at identical examinations.

Related to this, one student suggested, the 'pass mark be reduced (to 40%) for distance education students as they have little time for face to face'; and according to one prospective student, the 'marking scheme shouldn't be so tight since most of those are committed and may not have the time to research'. In spite of the assertion that assignments are open to cheating, one student suggested that the 'coursework marks should constitute 50% of final mark'. I find these suggestions very troubling because it seems to imply that because these are distance education programmes, standards should be lower. This approach would only reinforce the view that distance education is a second rate and poor option of providing education. If distance education is to be accepted in Uganda it should not compromise standards in any way.

As another way of ensuring standards, it was recommended that moderation of examination should continue to play a very central role.

Moderation of examination

According to responses given on this, only a small proportion of the respondents raised this as a strategy that can be adopted. In their view, assignments should be moderated before they are given to students; as one tutor said, 'must moderate examinations – this would be good for quality assurance'. This issue of quality assurance is discussed in further detail in section 6.4.8. The scores of those who answered this question were 0.45% of students' responses, none from the prospective students, 9.09% of policy makers' and 6.25% of the tutors and managers'.

Improved management and administration of assignments and examinations

From the responses received, the scores were 30.63% of students' responses, 42.86% of the prospective students' responses 41.67% of policy makers' and 9.09% of the tutors and managers'. General management and administrative weaknesses and how to

address them have already been discussed in section 6.4.3 and what was raised there is applicable to all administrative and management issues in the programmes however, here the respondents were concerned with the specific administration and management of assignments and examinations. And according to them, the following need to be done to ensure improvement:

- Focused and careful planning of assignments and examinations. According to one tutor, there should be 'advance preparation for examinations' and one student adds that examinations should only be conducted when the 'administration has ensured the course is completed by the concerned'. Focused and careful planning includes providing the year planner to students, tutors and managers with clear dates and venues.
- Continuous monitoring of assignments and examination activities. As one officer said, introduce 'checks and balances. Monitor assignments to ensure students present authentic work and not cheat'.
- Venues for examinations should therefore not be changed '…at the 11th hour because some students miss exams as a result.'
- Retake examinations should be arranged soon after results have been released and not the next time the same course is on offer which often implies waiting for a whole academic year.
- 'Time for some examinations should be longer e.g. educational psychology in B.Ed should be longer by 40 minutes'.
- Deadlines for assignment should be set and should be strictly adhered to. However, examinations should be done only at the end of the academic year and not at the end of every semester.
- Decentralised examinations. In the words of one student, 'examinations also be sat in upcountry centres'

Improving assignment turn around and providing prompt feedback

Assignments are one way in which interaction can take place between the tutors and the students. But this can only take place if there is correspondence tuition through these assignments and that this tuition is prompt, relevant and provides constructive criticism and guidance. For as Holmberg (1986:35) argues, *'feedback is important not only for discussion, explanation and enrichment, but also to show the student if he or she is on the right path …'* It was also the view of the respondents in this study that this is important and the speed with which the feedback on assignments is given should be improved (19.36% of students' responses, none from the prospective students, 20.46%

of policy makers' responses and 16.67% of the tutors and managers'). According to them,

- Assignments should be carefully marked and should also 'ensure tutors provide comprehensive comments/feedback on assignments. Provide guidance through assignments'. This is important since assignments are taken as a study tool, tutors should provide correspondence tuition, guiding and supporting the students through their comments (O'Shea and Downes 1997:64)
- Tutors should provide prompt feedback on assignments and examinations and release results soon after examinations. This feedback and results should also be '…quickly and easily accessible to the students', for example, through the district offices. According to another student, 'promptly release examination results and give students information through the district offices'.
- Assignments 'scripts should be returned (some lecturers do not return scripts)'

Closely related to providing feedback is the need for proper records management.

Proper records management

Records management is important in these programmes, particularly since assignments are used for assessment purposes. The records of assignment marks should therefore be carefully recorded and managed. According to responses given on this, the scores were 7.66% of students' responses, 14.29% of the prospective students' responses 8.33% of policy makers' and 2.27% of the tutors and managers'. The views were:

- 'Improve record management of students' progressive assessment and examinations'.
- Better administration of results because missing results is a common occurrence'.

Also that to reduce the problems of records management, the whole process should be computerised.

6.4.7 Other weaknesses in the Teacher Education programmes

In addition to weaknesses already discussed in sections 6.4.2 –6.4.6, the participants in this study also raised other weaknesses. Some of these are:

- Inadequate integration of ICTs in the programmes
- The 'Ministry of Education and Sports is not registering students who do not have two teaching subjects. Ministry is avoiding reality'. In addition, the District Service Commission does not recognise the Headteacher Training Scheme certificate so holders of this certificate do not necessarily have an advantage over those without the certificate.

- 'Poor attitude towards distance education graduates.' As already discussed in section 5.5.5, attitude towards distance education is one of the factors that is impacting distance education in the country. Distance education is viewed as a second rate option and the degrees awarded as second rate too. This is a problem that Paul (1990:59) also highlights.
- Some programmes like TDMS recruited weak students.
- Running face-to-face sessions during the school holidays implies teachers in these programmes do not rest at all. According to one education officer it is 'possible therefore for them to reach burn-out'.

Suggestions of how to address the major weaknesses identified have also been discussed. However, the next section will now focus on quality assurance mechanisms as a specific strategy of ensuring that teacher education programmes run by distance in the country are of high quality.

6.4.8 Quality assurance mechanisms

Quality is a concern of all who offer goods or services because this is likely to have impact on the choices that the consumers of these goods and services make. In distance education as well, quality has been the concern of a number of institutions offering distance education programmes. For, as Tait (1997:2) argues, quality assurance is paramount if distance education institutions are to reduce dropout rates. He also adds that quality assurance systems should not be transplanted from one institution to another. Instead, each institution should develop its own system taking into account the context in which the institution operates. For example, the Open University of Hong Kong imported standards and quality assurance systems when it was launched. However, this led to problems because of lack of a sense of ownership amongst its staff (Robertshaw 1997:67). It is for this reason that in this study, policy makers, tutors and managers were asked to suggest quality assurance mechanisms that should be put in place in teacher education programmes in Uganda to ensure that programmes run are of high quality (see item 18 in the interview schedule and in the tutors and managers' questionnaire - appendices II and VI). A total of 8 tutors and managers and 10 policy makers answered this question. See table 6.2 for the details of the distribution of the responses. From the different responses that were received, a number of suggestions were put forward.

a) Curricula

Sections 6.3.2 and 6.4.2 focused on the content of teacher education programmes and as already mentioned, teacher education programmes have been accused of running irrelevant, theoretical and heavily loaded curricula (Odaet 1985:45, Dove 1986:244). The challenge therefore is to ensure relevant, practical and balanced programmes that are of high quality as a strategy of ensuring quality. From the responses received (16.95% of those by policy makers, and 6.38% of those by tutors and managers) teacher education institutions need:

- To 'run programmes that are recognised by the accrediting institutions – programmes that have been through the rigours of approval in the institution'. This involves the 'vetting of all courses mounted'. This is already being done in Makerere University. All courses run in all the university programmes have to be approved by the host Department, Faculty/Institute Board, Humanities/Science Senate Committee, and the Senate. Other Universities like the Open University, UK, and Open University of Hong Kong also have committees meant to approve, review and vet courses (O'Shea and Downes 1997:60, Robertshaw 1997:71)
- To mount programmes that are balanced and that '…take into consideration the academic, professional and moral issues'. Courses must therefore be relevant.
- 'Consult all the stakeholders while developing curricula and determining standards to be achieved'.
- Clear objectives, rules and regulations of the programmes and these should be enforced.

b) Monitoring and evaluation

According to the policy makers, tutors and managers, monitoring and evaluation are important for quality assurance (%14.41of policy makers' responses, 13.83% of tutors' and managers' responses). So in their view, all programme activities should be monitored and evaluated continuously and regularly. This is in agreement with Seaborne (1997:85), who says that monitoring helps establish whether the standards set in the programme are being met. Evaluation should be by all the stakeholders and there should also be external evaluation of programmes and the 'Education Service Agency (ESA) could play this role. This ensures internal weaknesses are not overlooked'. Also in relation to this, one tutor recommended that Makerere 'carry out a tracer study to provide empirical information on the programme'.

This should also include close monitoring of all students and staff; and 'non-performers' weeded out. Monitoring of tutors could be achieved through student assessment of tutors and staff.

c) Study materials development and provision

Study materials are very central in distance education because students in these programmes study for the most part on their own and therefore need the study materials to do so. So according to the policy makers (12.71% of their responses) and the tutors and mangers (15.96% of their responses), the teacher education programmes should aim at developing and providing high quality study materials; and to achieve this demands training for writers, rigour in the process and commitment by all players. The entire study materials production and distribution process must therefore be closely monitored and supervised. A number of distance education institutions have well laid out procedures of ensuring that the study materials developed are of high quality. Some of the procedures include training of writers, reviewing and vetting of study materials, use of writing teams and evaluation of these study materials (Robertshaw 1997:71, Rowntree 1986:19 –23).

d) Assessment and examinations

The strengths and weaknesses of assessment and examinations have already been discussed in sections 6.3.6 and 6.4.6. In this discussion, it was pointed out that assessment and examinations are important for maintenance of standards. From the responses received, it was the view of policy makers (11.86% of their responses) and the tutors and managers (14.89% of their responses) that:

- 'Assessment and examinations are up to standard'.
- Assessment strategies should change so as to eliminate cheating in assignments. Cheating compromises standards'.
- 'Distance education students should sit the same examinations as internal students of same courses.'
- 'External moderation of all examinations'.
- 'Strict regulations and requirements for continuous assessment and examinations. Students must pass before proceeding to the next level'.
- 'Assessment should be done at several levels e.g. at university, exams, the school practice, and then the employers too should make their own quality assurance'.

e) Quality staff and staff development

Quality staff is vital for all levels of operation in the teacher education programmes and this has already been reflected in the discussions on strengths and weaknesses (see sections 6.3 and 6.4). At each of these levels, it was recommended that quality staff should be recruited and that there should be continuous training and retraining of staff. In examining the question of quality assurance, it was once again highlighted that recruiting quality staff and training is one way of achieving this (11.02% of the policy makers' responses and 18.09% of the tutors' responses). In particular, the training should be in '…skills that are tailored for distance education.'

f) Student support services

Just as with study materials, student support services are very central in distance education and it was the view of the respondents to this question that 'efficient student support services' is one way of ensuring quality in the programmes. Sections 6.3.5 and 6.4.5 focused on student support services. Altogether in 9.32% of the policy makers' responses and in 7.45% of the tutors' and managers' responses it was indicated that student support is one way of ensuring quality.

All the mechanisms suggested in these previous sub sections and the distribution of the responses are now given in table 6.2.

Table 6.2 Quality assurance mechanisms for Teacher Education programmes

What to do	**Tutors & managers**		**Policy makers**	
	f	%	f	%
Curricula	6	6.38	20	16.95
Monitoring and evaluation	13	13.83	17	14.41
Study materials development and provision	15	15.96	15	12.71
Assessment & examinations	14	14.89	14	11.86
Quality staff & staff development	17	18.09	13	11.02
Student support services	7	7.45	11	9.32
Institutional standards and procedures	6	6.38	9	7.63
Entry requirements	4	4.26	9	7.63
Management & administration	7	7.45	7	5.93
Funding & Resources	4	4.26	3	2.54
Other ways	1	1.06	0	0

It is interesting to note here that whereas policy makers had the highest scores (16.95% of their responses) for curricula as a mechanism to ensure quality assurance, the tutors and mangers gave this option only 6.38 % of their responses. Is it perhaps that since the tutors and managers have been involved in the design of curricula they do not see this

as an area of weakness whereas the policy makers are not as intimately involved with the curriculum and therefore see its gaps?

In addition to all the quality assurance mechanisms suggested above, the respondents to this question also suggested that:

- Institutions have 'clear and efficient management systems that involve all the stakeholders'.
- Institutions define the 'minimum entry requirements and pass requirements taking into account background of the teacher'. However, one official suggested that the institutions should 'admit high quality candidates and not simply depend on minimum requirements'. This is another strategy that is likely to create barriers and cut off some people and yet distance education is believed to be able to open up access and cater for the disadvantaged (De Wolf 1994:1558, Holmberg 1995b:13, Rumble 1992:19). At the same time, to improve the quality of teachers it is important that teacher education institutions should endeavour to recruit high quality candidates. This is a dilemma for distance education institutions offering teacher education programmes. See chapter three, figure 3.2 for the vicious cycle of poor quality education.

6.4.9 Conclusion

This section has focused on discussing some of the weaknesses that were identified in the teacher education programmes that have been run by distance education in Uganda. Under each of the weaknesses, strategies of addressing the weakness have also been discussed. It is therefore clear that although a lot has been achieved, there is still a lot more that needs to be done to make the programmes much more effective and efficient.

One common trend in all the recommendations made to improving programmes is decentralisation of services. Distance education students are often scattered across large areas and are likely to face isolation. To reach these students, services must be provided nearest their homes and where possible, perhaps through technology, in their homes. Continuing to provide services centrally is self-defeating and makes programmes more costly for students. True, decentralised services might imply higher costs to the institutions but there cannot be any short cuts to more efficient and effective service provision.

Also, although the strengths and weaknesses have been discussed under different topics, it should still be remembered that these are not mutually exclusive but should instead be viewed as parts of a whole.

In discussing these weaknesses and strengths the respondents were not asked to identify the strengths and weaknesses of specific programmes. What has been presented here therefore refers to teacher education programmes that have been run by distance education in Uganda in general. However, since the focus of this study was on INSET for secondary school teachers and since at the start of the study Makerere University was the only institution engaged in this, the next section will now focus on the strengths and weaknesses of the Bachelor of Education (External).

6.5 STRENGTHS OF BACHELOR OF EDUCATION (EXTERNAL)

6.5.1 Introduction

The Bachelor of Education was launched in 1991 as part of the Makerere University External Degree Programme (EDP). Since 1999, the B.Ed External has admitted more than 1,500 students each year and between 1991 and 2000 a total of 974 teachers have completed and graduated with Bachelor of Education; while nearly 2,600 are continuing with the programme. See chapter 3 section 3.6.5 for details on the programme and table 3.7 and figure 3.9 for the numbers admitted and those completing since 1991.

However, in spite of all the achievements highlighted, the programme has faced a number of challenges. In this study, questions were put to the participants in the study asking them to identify what they see as strengths and weaknesses of the programme in the areas off:

- The content of the programme;
- Practical work in the programme;
- Management and administration of the programme;
- Student support in the programme;
- Study materials development and provision in the programme; and
- Assessment and examinations of the programme.

For each of these areas, the same categories as those used in sections 6.3 and sections 6.4 were used to categorise the responses. These same categories will therefore be used to discuss each of the major areas. Also, the Bachelor of Education (External) programme will continue to be referred to as the B.Ed (External).

However, the questions to prospective students did not require them to respond using these specific areas because, it was assumed that since they are not in the programme, they would not be in position to address these questions. Instead they were asked to identify any problems that the B.Ed (External) students they know are facing.

Ultimately, a total of 129 students, 17 tutors and managers and 16 policy makers responded to these questions. The number of tutors and managers who responded to questions in this section is smaller than the total number in the sample (47%) because according to some of them, these questions had already been answered while answering the questions on strengths and weaknesses of teacher education programmes that have been run by distance education (see sections 6.3 and 6.4 for the discussion of these results). In the light of this, although the next sections focus on what is specifically ascribed to the B.Ed (External), the strengths and weaknesses discussed in 6.3 and 6.4 should be borne in mind.

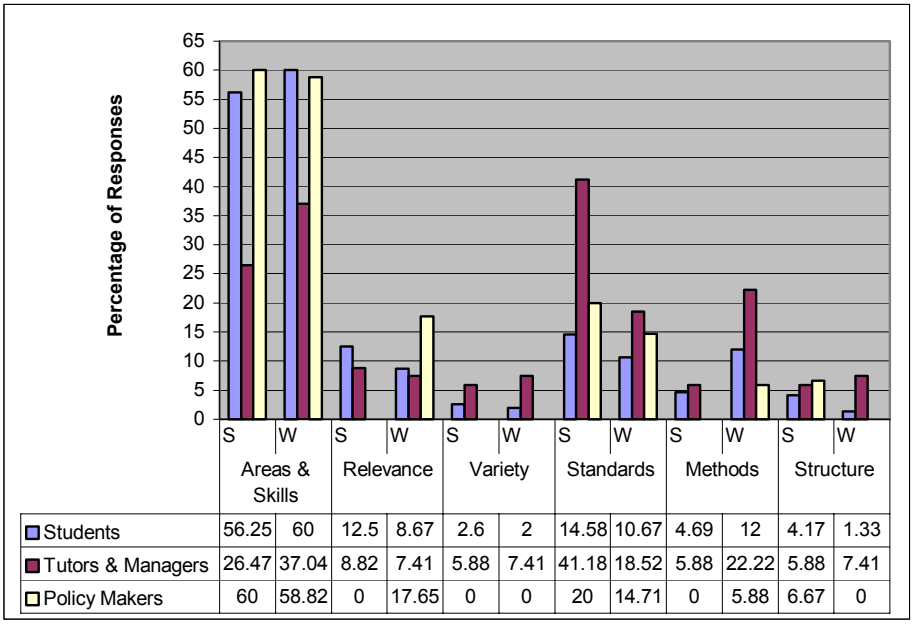
6.5.2 Strengths of the content of the B.Ed (External)

One of the elements described in chapter 3 section 3.6.5 is the curriculum of the B.Ed (External), it is therefore assumed that the comments on the content on the programme is based on the experiences with this curriculum. From the responses received, a number of strengths were identified in relation to:

- Areas covered and skills acquired in the programme
- The relevance of the content
- Variety in the courses offered
- Quality assurance and standard of the content
- Methods used in covering the content
- Structure of the content

Each of these will now be discussed. Figure 6.2 reflects the distribution of the responses received on the strengths and weaknesses of the content of the B.Ed (External). See also the interview schedule item 22a and 23a; the tutors and managers' questionnaire item 23a and 24a; the students' questionnaire item 21a and 22a; and prospective students' questionnaire item 23 for the questions (appendices II –VI).

Figure 6.2 Strengths and weaknesses of content of B.Ed (External)



	Areas & Skills		Relevance		Variety		Standards		Methods		Structure	
	S	W	S	W	S	W	S	W	S	W	S	W
Students	56.25	60	12.5	8.67	2.6	2	14.58	10.67	4.69	12	4.17	1.33
Tutors & Managers	26.47	37.04	8.82	7.41	5.88	7.41	41.18	18.52	5.88	22.22	5.88	7.41
Policy Makers	60	58.82	0	17.65	0	0	20	14.71	0	5.88	6.67	0

S - Strength W - Weakness

a) Areas covered and skills acquired in the programme

According to those who responded to this question, and as illustrated in figure 6.2, 56.25% of responses from students, 60% of responses from policy makers and 26.47% of the tutors' and mangers' responses, B.Ed (External) has a rich content that enables the students to acquire knowledge and skills that they need. However, as illustrated in figure 6.2, an almost equal number of respondents argued that the content of the B.Ed (External) is also inadequate in the areas and skills it covers. I believe this is because although the content of the programme has some strengths, it nevertheless still has weaknesses. Weaknesses of the content of the programme are discussed in section 6.6.2.

In this study, the respondents argued that the content of the B.Ed (External) is helpful because in the words of one student, 'content helps in producing competent staff and makes the students more skilful.' Another student was convinced that the rich content '…enables students to compete internationally.'

The content was also said to 'help in understanding more the missed out content at diploma.' This is important since one of the reasons for INSET is to help teachers sharpen their knowledge and skills (Bagwandeen and Louw 1993:1, Dove 1986:224, Garden 1998:226, Iredale 1996:15). Also, the objective of launching the B.Ed (External)

was so to give '…*students in-depth knowledge of teaching subjects selected for specialization'* (CCE 1990:22). The other strengths identified are:

- The content 'provides new methods of teaching'.
- 'The academic part of the content is comprehensive and adequate'. This is as opposed to professional subjects.
- The content 'covers essential areas like problem solving, knowledge of resources required to teach/learn, research skills'.
- There is 'sufficient content coverage made through study materials and face to face sessions.'

Related to this all therefore is the relevance of the content of the programme.

b) Relevance of the content of B.Ed (External)

It is important that INSET programmes are relevant to the needs of the teachers. So from the responses received on this question, 12.5% of responses from students, no responses from policy makers and 8.82% of the tutors' and mangers' responses, the content of B.Ed (External) is relevant because:

- 'It enables the teacher to improve on the teaching skills to face challenges in the classroom'.
- It is '…very valid to the level…'
- It 'is what the teachers need to teach at their levels. Prepares them to teach at "A" level.'

So according to the responses received in this area, the content of B.Ed (External) is relevant to the teachers' needs and it helps prepare them for classroom practice. See also figure 6.2.

INSET is meant to help improve the teachers' knowledge and skills (Bagwandeen and Louw 1993:1, Dove 1986:224 Garden 1998:226, Iredale 1996:15). However for this to be achieved, the content of the programmes should be the kind that will enhance achievement of the INSET aims.

c) Variety in the subjects offered

As already discussed in chapter three section 3.6.5 and as shown in table 3.6 the B.Ed (External) students have elective subjects that they can take. In this study and according to a very limited number of respondents (2.6% of students' responses and 5.88% of tutors' and managers'), the content of B.Ed (External) has a variety of courses on offer. See figure 6.2 for the graphic representation of this. According to one student, the

programme 'has a wide curriculum cutting across sciences and arts (including Fine Art). Secondary school teachers in Uganda teach a cross section of subjects although each teacher is expected to have two teaching subjects. It is therefore vital that the B.Ed (External) offer a variety of subjects from which teachers can choose their options.

d) Quality and standard of the content of B.Ed (External)

In section 6.4.8a while discussing quality assurance mechanisms, it was raised that one way of doing so is to ensure that the curricula are of high quality. In response, therefore, to the strength of the content of B.ED (External), the concern of the respondents here was with the quality and standard of the programme. According to them, the content is appropriate for university level, it is of high quality and in some subjects, like Literature in English and English Language Studies, the content is 'almost the same with the full time students'. Other issues raised as a reflection of this high quality and standards are:

- The 'coursework is compact, diverse and rich'
- 'Up-to-date content is covered in the programme'
- The 'research component lays a very good foundation for further research'.
- 'Supervision of research enriches the supervisors as well'.
- Content is logically, systematically arranged'.
- 'Quality control mechanisms are in place'.

According to the results received and graphically presented in figure 6.2, 14.58% of students' responses, 20% of the policy makers' and 41.18% of the tutors and managers' responses, the content of B.Ed (External) is of high quality and standard.

e) Distance learning study package

The respondents in this study were also concerned about the methods that are used to cover the content of the programme and according to them,

- 'Students are encouraged to discover a lot by themselves'. This is important in distance education since distance learners study for the most time on their own. Also, according to Coetzer (2001:75-76), in the new educational approach learners are expected to take responsibility for their own learning.
- The study package gives 'opportunity for up-grading that may not be available for this category of teachers'. This is because distance education opens access to those that are disadvantaged and also allows them to study as they work (De Wolf 1994:1558, Holmberg 1995b:13, Rumble 1992:19 Robinson 1996:6).

- Programme has 'well prepared materials'. The B.Ed (External) utilises especially prepared study materials and according to one of the tutors, this material is well prepared.
- 'Where more than one lecturer teaches on a course, there is cross fertilisation'. The assumption here is that when there is more than one person teaching then different perspectives brought into the course enrich the teaching and learning.

f) Structure of the content

This is the last but not least area of strength of the content identified and it refers to the manner in which the content of the programmes is arranged or organised. Structuring of content is an important factor because as Moore (1986:11, 1996:26) argues, this will determine whether that programme will overall be highly structured or less structured and ultimately, this determines the transactional distance that will exist between the learner and the teacher. According to a small proportion of respondents in the study (4.17% of student responses, 6.67% of policy makers' and 5.88% of tutors' and mangers' responses), the B.Ed (External) content is well structured. It is 'logically arranged'. In table 3.6 a summary of B.Ed (External) is provided and this shows that the programme can be completed in a minimum of 6 semesters and a maximum of 12 semesters. This allows a student to study, temporarily withdraw and then return to the programme which introduces an element of flexibility that is important for distance learners. This approach seems to be a high-breed of the two strategies that Holmberg (2001:21) recommends as ways of structuring programmes. According to him, programmes can be either extra paradigmatic, allowing for flexibility, or it can be innovative within an accepted paradigm with classes/cohorts, fixed starting times, fixed schedules for assignments, and fixed duration of the course. The B.Ed (External) has cohorts and fixed schedules for assignments and examinations. However, the student is given opportunity to temporarily withdraw and resume later. See section 2.5.4 for a discussion on Holmberg's theory.

6.5.3 Strengths of the practical work in the B.Ed (External)

Provision of practical work is a challenge to distance education programmes as already discussed in section 5.4 so the students and tutors and managers were asked to show any strengths if any in the provision of practical work in B.Ed (External). See also the tutors and managers' questionnaire item 23a, and students' questionnaire item 21a (appendices II, III and V).

Most of the responses received on this were from students with only 9 tutors and managers giving their views. However out of these few responses, the areas of strength identified were:

- Face to face sessions are used to provide for the practical work
- Tutors are competent to handle the demands of practical work
- Where practical work is required, the programme provides the required materials
- 'Quality control mechanisms of Makerere University apply to these areas as well'
- 'Research has high demands but has been a success story'.

From the responses received, it seems that practical work is most applicable in the subjects of Art and Craft and in English Language Studies that have practical components in their curricula. Also, although school practice is an important element in teacher education, and is not being offered in the B.Ed (External), there was no reference to it at all. See also section 3.6.5 for a discussion on school practice and the B.Ed (External).

6.5.4 Strengths of the management and administration of the B.Ed (External)

The Bachelor of Education (External) is run by the Department of Distance Education in collaboration with the School of Education. Under this arrangement, the Department of Distance Education is responsible for:

- Keeping and maintaining student records
- Receiving and dispatching assignments for marking and eventual distribution of marked assignments to students.
- In consultation with the teaching faculties identify and train tutors, writers, editors and reviewers of the study materials.
- Production, publication, revision and distribution of study materials developed.

The School of Education on the other hand is responsible for the teaching functions and these include:

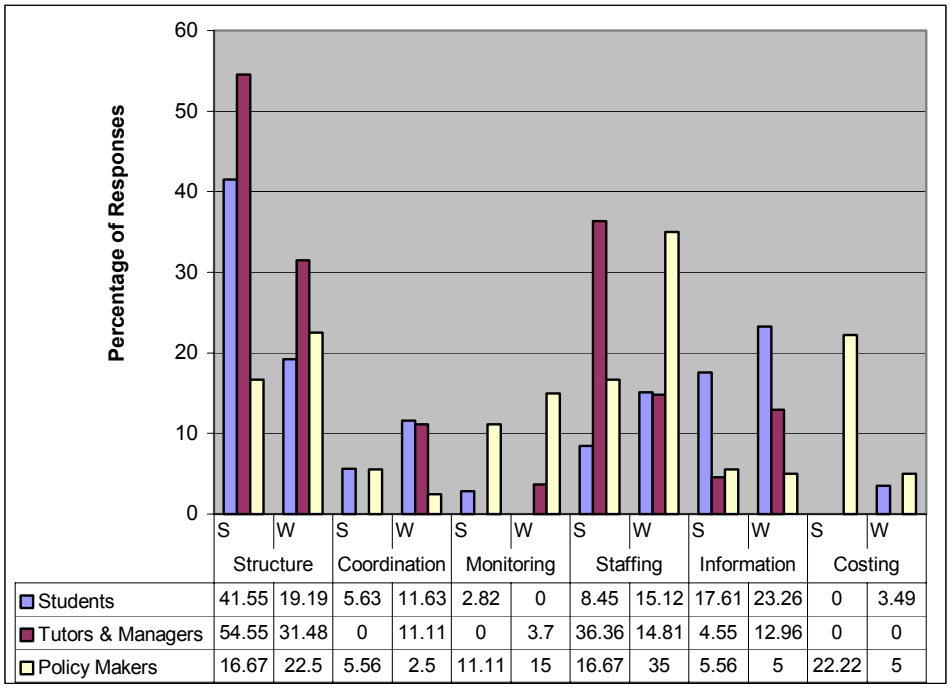
- In collaboration with the Department of Distance Education identify tutors, writers and reviewers of study materials, and external examiners.
- Recommend reading lists for the different subjects and where necessary vet study materials acquired.
- In collaboration with the Department of Distance Education ensure that standards are maintained in teaching and in the assignments and examinations set.

This collaborative strategy of managing programmes is typical of dual mode universities like Makerere University. In most dual mode universities, a service unit is established to

take charge of the administrative tasks of the programme (Bottomley and Calvert 2003:1). However, as already raised in chapter two section 2.7.4, the demarcation between administrative and academic functions is not always obvious.

The respondents in this study were asked to comment on what they see as the strengths and weaknesses of such an administrative and management strategy. See also the interview schedule items 22b and 23b; the tutors and managers' questionnaire items 23c and 24c; the students' questionnaire items 21c and 22c; and prospective students' questionnaire item 23 for the questions (appendices II –VI). In their responses, a number of areas of concern were identified and those with the highest responses are illustrated in figure 6.3, which gives what was raised as the strengths and weaknesses of the management and administration of the B.Ed (External).

Figure 6.3 Strengths and weaknesses of management and administration of the B.Ed (External)



	S	W	S	W	S	W	S	W	S	W	S	W
	Structure		Coordination		Monitoring		Staffing		Information		Costing	
Students	41.55	19.19	5.63	11.63	2.82	0	8.45	15.12	17.61	23.26	0	3.49
Tutors & Managers	54.55	31.48	0	11.11	0	3.7	36.36	14.81	4.55	12.96	0	0
Policy Makers	16.67	22.5	5.56	2.5	11.11	15	16.67	35	5.56	5	22.22	5

S – Strength W - Weakness

Each of the strengths raised will now be briefly discussed.

a) Structure and organisation of the Department and the programme

The highest number of responses on the strengths of the programme from students (41.55%) and tutor and managers (54.55%) were in relation to the structure and organisation of the Department and the programme; policymakers on the other hand had 16.67% of their responses. In their view, the fact that the programme has a specific

Department handling the programme is an advantage. Related to this, one manager was glad that the programme has been 'institutionalised into Makerere University'. Which means the programme is recognised by the university and can therefore receive attention like all the other university programmes. See also figure 6.3 for the graphic presentation of this data.

Other issues raised with regard to the structure and organisation of the Department and the programmes were:

- The 'management is well focused though the tasks ahead are very challenging', and according to one student, the management is 'trying to be up to standard'.
- 'Top management of the programme is good and committed'. The implication here is that the lower administrative cadre in the Department is not committed. This should be of concern to the Department because there is no officer that is too small to matter. The success of the Department should depend on commitment from all staff both top and lower cadre.
- 'There is a hierarchy of management. Work is delegated with different offices handling different issues'. This is clearly employing what Peters (1994:113) calls rationalisation through division of labour that he says is important in distance education.
- 'Management is flexible'.
- 'The management is working hand in hand with students to deal with some problems'. This reflects the Department's effort at involving students in the management of the programme.
- The Department also 'organizes face to face sessions' and 'schedules programmes/activities'.

Those who responded to this question are clearly concerned about the how the Department is organised and how this enables the Department to efficiently serve its clients.

b) Coordination and monitoring of activities of the B.Ed (External)

As already mentioned, the B.Ed (External) is run on a collaborative basis involving the School of Education and other university departments and also, that its students are scattered across the entire country. This is similar to a number of distance education institutions which also have students scattered across distant places (De Wolf 1994:1558, Perraton 2000:136). This therefore implies that there is need for a lot of coordination of activities. The respondents to this question were also of the view that

coordination is important and it is one of the strengths of B.Ed (External). The proportion of those with this view was, however very small, only 5.63% of the students' responses, and 5.56% of the policy makers'. See figure 6.3. The two major issues raised were:

- 'There is some good coordination of the management with the different departments within the institute'. This also includes coordination with other university departments.
- Involvement of students in the coordination of activities. As one student said, 'setting up of student leaders – coordinators'.

Since there is division of labour in distance education, it is important that all activities are well coordinated to avoid confusion and frustration for all involved.

Closely related to this is monitoring of activities which in the view of again a small proportion (only 2.82% of the students' responses, and 11.11% of the policy makers') is a strength in the B.Ed (External). To them, students are participating in the monitoring of activities through the involvement of their student leaders. Also that, 'emphasis on deadlines' is a good monitoring tool.

c) Staff required to run the B.Ed (External)

To effectively run its activities, the B.Ed (External) needs well-trained and highly motivated support and academic staff. It needs staff to manage and administer the programme; tutors to run the face-to-face sessions, provide academic guidance to students, and to set and mark assignments and examinations; reviewers to review all the study materials developed; editors and various other support staff. These must be people with professional skills but who must also be knowledgeable in distance education (Bottomley and Calvert 2003:3). To achieve this, there is need for careful recruitment and for training and retraining of those already involved in the programme.

According to the respondents in this study (8.45% of the students' responses, 16.67% of the policy makers' and 36.36% of tutors' and mangers' responses),

- The 'Department has staff qualified in distance education'.
- Staff ' is committed, qualified, and well intentioned…'
- Training workshops are run for tutors and writers.
- Programme also utilises '…learned and experienced lecturers'.

See figure 6.3 for illustration of presentation of strengths and weaknesses.

d) Information dissemination and public relations

Students had the highest responses on this with 17.61% of their responses while policy makers had only 5.56% of their responses and the tutors and managers with 4.55%. Some of the strengths identified in relation with information dissemination and public relations were:

- Attention and tolerance of student problems and so in the words of one student, the Department is 'responsive to students' needs' and this they say, 'enables students to continue with the programme'.
- Related to this, the students were also glad that 'there is always somebody to attend to the students at the reception.'
- Subject coordinators keep the students well informed.
- Orientation sessions are organised for first year students and according to one of the students, these sessions are '…suitable for upcountry students'.
- 'The administrators are approachable'.

Provision of clear information is certainly important and also, it is important that administrators and mangers show concern for the learners and are seen to be easily approachable for as one student said, this 'enables the students to continue with the programme'.

e) Fees and costing of B.Ed (External)

In the view of the policy makers, (with 22.22% of their responses) the B.Ed (External) charges low fees and that the students can pay this in instalments thus permitting many more to enrol in the programme. The students and tutors and managers did not share this same sentiment with the policy makers and so none of them raised this as a strength of B.Ed. Students instead raised this as one of the areas of weakness. See figure 6.3.

Apart from the strengths that have been discussed in 6.5.4 a-e, a small proportion of respondents also identified the following:

- Flexible programming of the activities (1.41% of student responses, and 11.11% of the policy makers' responses). This is particularly important since one of the reasons many join distance education programmes is because of the need for flexible methods of studying (Peters 1996: 45, Rumble 2000:1).
- High number admitted and the Department's ability to sustain the programme in spite of this challenge (1.41% of student responses, and 11.11% of the policy makers' responses). This also reiterates one of the advantages of distance education already

highlighted – that is its potential to open up access and to recruit many students (Holmberg 2001:17).

Management and administration of B.Ed is therefore an important element of the programme and some strengths have been identified which perhaps need reinforcement so as to achieve even better results.

6.5.5 Strengths of the study materials development and provision in the B.Ed (External)

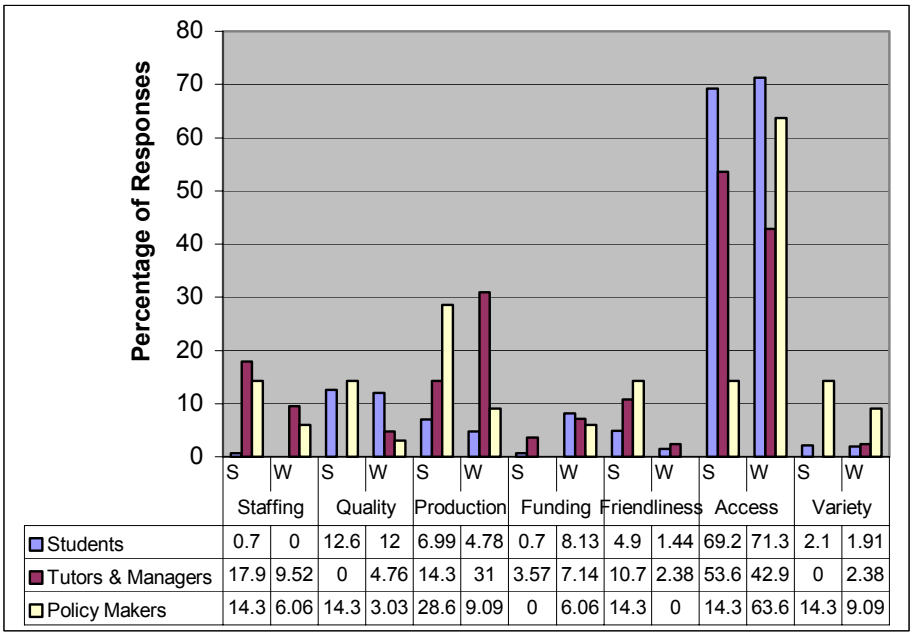
The Bachelor of Education (External) uses a study package that includes:

- Written materials including, handouts, textbooks, reference materials and especially produced modules;
- Student study group meetings;
- Face-to-face sessions;
- Audio cassettes and radio; and
- Other student support services.

However, written materials are supposed to be the core medium of instruction in this programme while all the others are meant to be support or to supplement the written study material. The respondents in this study identified a number of strengths related to study materials development and provision in the B.Ed (External). See the interview schedule item 22c and 23c; the tutors and managers' questionnaire item 23d and 24d; and the students' questionnaire item 21d and 23d and prospective students' questionnaire item 23 for the questions (appendices II –VI).

Figure 6.4 graphically represents the strengths and weaknesses identified.

Figure 6.4 Strengths and weaknesses of study materials development and provision for B.Ed (external)



	S	W	S	W	S	W	S	W	S	W	S	W	S	W
	Staffing		Quality		Production		Funding		Friendliness		Access		Variety	
Students	0.7	0	12.6	12	6.99	4.78	0.7	8.13	4.9	1.44	69.2	71.3	2.1	1.91
Tutors & Managers	17.9	9.52	0	4.76	14.3	31	3.57	7.14	10.7	2.38	53.6	42.9	0	2.38
Policy Makers	14.3	6.06	14.3	3.03	28.6	9.09	0	6.06	14.3	0	14.3	63.6	14.3	9.09

S - Strength W - Weakness

From this figure it is clear that the issue of access to the study materials received the highest responses both as a strength and a weakness. This I believe is a reflection of the importance that all the respondents attach to the development and provision of study materials.

Each of the strengths of study materials development and provision will be briefly discussed in the next sub sections.

a) Staff for materials development and provision

Tutors and managers had the highest number of responses on this with 17.86% of their responses. I believe, this is because they benefit directly from the training workshops often organised for writers and reviewers of study materials. Also, according to them,

- Study materials have been 'written by writers who have been trained to write for distance education learners'.
- There is 'willingness of writers to develop materials'.

One tutor particularly believes that the 'head of materials development is very focused and has a big vision for the section…'

Policy makers also share some of these sentiments with the tutors because according to one of them, the 'writers training workshops held help equip distance education writers

with special skills'. Altogether in 14.29% of their responses, the policy makers said that recruitment, training and motivation of staff in materials development and provision were achievements in the B.Ed (External). Only one student (0.70%) saw this as strength.

b) Quality of study materials

Study materials in distance education must be of high quality so simply providing any study material is self-defeating. In section 6.4.8c quality study materials is identified as one of the mechanisms that distance education institutions need to put in place so as to ensure quality programmes. Quality in the study materials is therefore critical and must be assured for as SAIDE (1996:70) say, a quality distance education programme has well-designed study materials. In this study, and as illustrated in figure 6.4, some of the students (12.59% of their responses) and policy makers (14.29% of their responses) were of the view that B.Ed (External) has some high quality study materials. To them, this is because:

- Study materials provided are relevant. In the words of one student, 'without those materials it would have been impossible to proceed'.
- 'Handouts are precise to the topics of study'.
- 'Students get enough study materials through borrowing and the materials are constantly updated'. This seems to be more so for professional courses because one student said, 'sufficient materials offered for professional subjects'.

Ironically, none of the tutors and managers raised this as a strength and yet they are the study materials developers! So does this imply they have no confidence in what they have themselves developed?

c) Development of study materials for B.Ed (External)

The development of study materials starts from the planning of the course, through its writing, reviewing, editing, and illustration to the reproduction of the completed material (Robertshaw 1997:71, Rowntree 1986:19 –23). Regardless of the media that is eventually used it is important to remember that the development process is long and likely to involve a number of people, and unless the material is eventually available to students, the entire process will have been futile. Well-designed study materials are useless if they are not reproduced and made accessible to students at the right time.

In this study, some strengths related to the development of study materials were raised. The highest responses were from policy makers with 28.57% of their responses;

students had the least responses with only 6.99% of the responses while the tutors and managers' responses were 14.29% of their responses. According to them, there has been effort at developing study materials and as a result, 'a few modules have been produced'.

d) Funding for study materials development and provision

The production of study materials for distance education often requires high initial investment but unfortunately, this is sometimes ignored by a number of policy makers to the detriment of distance education with the result that poor quality and inadequate services are provided (Bates 2000:128, Berge 2001b:19, Orivel 1994:1572, Robinson 1996:20-27). However, in the B.Ed (External) programme, the respondents were of the view that this programme has done well in utilising its 'limited funding to develop quality materials'. This programme is funded almost solely from tuition fees that students pay, so all its funds for materials development is raised from the fees. The Department allocates 16% of its income to study materials development and provision. From the B.Ed (External) alone, this amounts to about US$ 80,000 annually.

e) User friendliness of the study materials

Study materials developed should be in a language and structure that will not inhibit learning but which will instead promote learning. For example, Rowntree (1986:58) says that course material should not be overloaded because it only leads to stress for the learners. Holmberg (1986:108-111, 1995b:47, 2001:38-41) is also concerned about the user friendliness of the study materials, and he suggests that course materials developed for the distance learner should be presented in an interactive manner. The learner should be addressed personally and should be given opportunity to interact with the material through the self-checking exercises.

In this study, the respondents were of the view that the study materials developed for B.Ed (External) 'are written in a simple language to be easily understood by the students'. Also the study material is 'easy to read and use' is written in an interactive manner and includes local examples.

f) Access to the study materials

As mentioned in the introduction to this sub section, access to study materials had the highest number of responses, 69.23% of the students' responses, 14.29% of the policy makers' and 53.57% of the tutors and managers'. Study materials in B.Ed (External) are made available through the Book Bank in the Department of Distance Education, the

Institute of Adult and Continuing Education library, other university libraries, through the handouts given to the students and by individually photocopying of various other materials.

According to the respondents, B.Ed (External) students have access to the study materials. Some of their comments were:

- 'After payment one is allowed to sign for books'
- 'Library services are open to all students except we may lack time to visit'.
- 'Some study materials have been sent to upcountry libraries at identified centres' while some has been sold to students.
- Study materials are available 'even in the non-final stage. Available as pilot modules'.
- 'Borrowing system ensures sustainability of provision'.
- 'Materials are adequate for the learners. Modules being provided. Handouts are given. Textbooks are available in the main library.'

From all these comments, these respondents see that Makerere University is endeavouring to make available study materials to the students of B.Ed (External). However, the strategies being used to do so are clearly not the ideal in a distance education setting. For example, why 'lend' study units as well? Most distance education programmes give study materials but only lend out library materials. Makerere may have been forced into this for a variety of reasons. These weaknesses are discussed further in section 6.6.5.

g) Variety of study materials and integration of ICTs

A limited number of responses were received on this with only 2.10% of the students' responses, none by tutors and managers and 14.29% by the policy makers. However according to them, there have been attempts at offering variety by acquiring some study materials from other universities. Some material from Nairobi University is available. Also, in some subjects audiocassettes have been produced.

6.5.6 Strengths of student support in B.Ed (External)

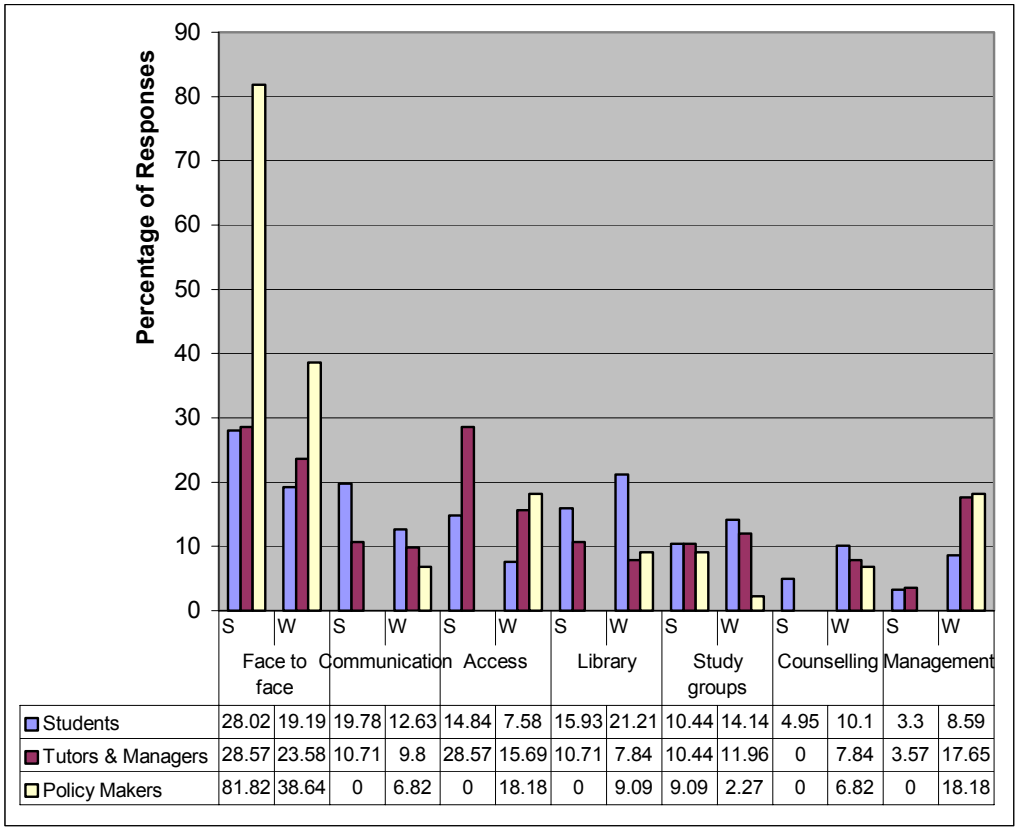
Student support in the B.Ed (External) is in the form of:

- Regular face to face sessions held mostly centrally at Makerere University but occasionally also at the regional centres
- Student group meetings often initiated and organised by students in their localities. Students can meet alone as students and could invite a specific tutor to help them with specific problem areas.

- Access to library services. This is provided through the main University Library, other University Libraries, the Departmental Book Bank, and through some public/institutional libraries that the Department is collaborating with.
- Provision of general information through the Departmental website, prospectus, notices, radio announcements and various circulars.
- Counselling and guidance. Any student with a specific problem can approach any staff member and seek counsel or guidance. The University Hospital also has a counselling unit that is open to all the university community.

Students, policy makers and tutors and managers who participated in this study were asked to reflect on the provision of student support for the B.Ed (External) and to comment on its strengths and weaknesses. See the interview schedule item 22d and 23d; the tutors and managers' questionnaire item 23e and item 24e; the students' questionnaire item 21e and 22e; and prospective students' questionnaire item 23 for the questions (appendices II –VI). The results of this are reflected in figure 6.5.

Figure 6.5 Strengths and weaknesses of student support in B.Ed (External)



	S	W	S	W	S	W	S	W	S	W	S	W	S	W
Students	28.02	19.19	19.78	12.63	14.84	7.58	15.93	21.21	10.44	14.14	4.95	10.1	3.3	8.59
Tutors & Managers	28.57	23.58	10.71	9.8	28.57	15.69	10.71	7.84	10.44	11.96	0	7.84	3.57	17.65
Policy Makers	81.82	38.64	0	6.82	0	18.18	0	9.09	9.09	2.27	0	6.82	0	18.18

S - Strength W - Weakness

Each of the strengths identified will now be discussed. The weaknesses will be discussed in section 6.6.

a) Face to face sessions for B.Ed (External)

According to Department's prospectus, at least two face-to-face sessions are organised every semester and the B.Ed (External) students are expected to attend these, although the sessions are not compulsory. According to responses received, 28.02% of the students' responses, 81.82% of the policy makers' and 28.57% of the tutors and managers', face-to-face sessions are important and have been organised for these students. Overall, of all the strengths identified on students support, face-to-face sessions had the highest responses. The policy makers had the highest number of responses citing face-to-face sessions as one of the strengths of the students support for the B.Ed (External). The evidence of this strength is that:

- Face-to-face sessions '…are arranged for students both at the university and at specific regional headquarters in the upcountry'.
- 'Face-to-face sessions are organised during the school holidays so do not clash with the school programmes'.
- 'Face-to-face sessions are relevant and supportive to students'. 'Encourages students share cultural and academic experiences'. One of the characteristics of distance education is that the learner and the teacher are separated and so the challenge the distance learners face is having to cope with isolation (Amundsen 1996:61-79, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8). Where, therefore, face-to-face sessions are organised, they provide opportunity for students to overcome this isolation and have opportunity to interact with one another and with their tutors.
- 'Teaching during the face-to-face sessions is well done'. Although this was not explained it could imply the teaching is well organised but it could also imply that the actual teaching/learning experience was rich.

b) Communication and information flow

In a situation where the student and the learner are separate, strategies of bridging the gap between them are important. This separation can be:

- in terms of physical distance and time (Keegan 1996:118-119)
- the separation of the teaching and learning acts (Keegan 1996:130)
- psychological and communications space (Moore 1996:22)

Communication and information flow are therefore very important for purposes of bridging this gap. According to the respondents in this study, one of the strengths in the student support for B.Ed (External) students is the communication and information flow in the programme. Out of all the responses the students gave on strengths of students support, 19.78% cited communication and information flow while the tutors and managers' responses on the same amounted to10.71% of all their responses on this question. The policy makers did not see this as strength at all. This may be because since they are not directly involved in the programme, they may not see the place of this in the programme. According to those who responded to this question, the evidence of this strength is that:

- 'Information is always given to students through radios, notice boards and briefing during face-to-face sessions'.
- 'Radio Uganda has been effectively used for announcements'.
- 'Effort is made to meet students from time to time to discuss their problems'.

c) Library services for B.Ed (External) students

Some reference to library services was made in section 6.5.5f while discussing access to study materials. Makerere University regards provision of library services as one of the support services and to the respondents in this study (15.93% of student responses, and 10.71% of tutors and managers') this is an important service which is relatively well provided. To them, this is because the university libraries are accessible to students and they can borrow books; and also because there are efforts at ensuring access to library facilities through upcountry centres. Next here are some of the comments received on this subject.

- 'Borrowing system ensures sustainability of provision of study materials even in time of shortages'.
- Regional centres and libraries available for coordination'
- 'Upcountry libraries have been opened to provide services nearer the students'.
- 'Some good textbooks are available in the library but students upcountry do not have easy access to them.'

d) Study group meetings for B.Ed (External) students

As mentioned earlier in the introduction to this sub section, students can initiate and organise their own study group meetings that can then take place with or without a tutor's assistance. These self-help groups as Robertshaw (2000:3) argues are important

for *'peer tutoring'* and like the face-to-face sessions they are also important as ways of dealing with isolation. The respondents in this study do not seem to see this as particularly very strong because only a few responses were received, only 10.44% of students' responses, 9.09% of policy makers' and 3.57% of tutors and managers'. Nevertheless the following strengths were identified:

- There are 'active student study groups at the upcountry centres'.
- Through these meetings, students can 'seek/learn from others'. Also that 'peer group promotes socialisation'.
- Study groups are a huge potential – 'allowing students to support each other'.
- 'Student study groups that are always encouraged have helped the students to improve on those communication skills and give counselling among themselves'.
- 'Students are encouraged to study in groups. This consolidates what has been learnt'.

Form all these responses, student study group meetings are seen as important because of their potential to enrich learning and also because they provide opportunity for student/student interaction and support. This illustrates what Peters (1994:227, 1996:46) says because to him, social interactions are still important in distance education and are often provided through face-to-face sessions or through student self-help groups.

e) Guidance and counselling for B.Ed (External) students

A small proportion of students were of the view that guidance and counselling in B.Ed (External) is actually strength because only 4.95% of their responses were on this. Policy makers and the tutors and mangers did not see this as strength at all so there were no responses on this. However according to the students,

- 'Students are guided through the course outlines, information provided through the radio and notice boards'.
- Counselling services available to those who need this.

This all seems really sketchy and needing some more attention. B.Ed (External) students are all working adults who must be facing a lot of challenges and would therefore benefit from much more comprehensive guidance and counselling. This has been discussed in section 6.4.5b and is again picked up in section 6.6 when weaknesses of the programme are discussed.

f) Access to student support services

In relation to all the student support services that the respondents raised, they were also concerned about access to these services. And according to a number of students (14.84% of their responses) and tutors and mangers (28.57% of their responses), access to the services is an important element in the provision of student support services. According to them,

- student support is an 'essential part of the programme where students do most of the work on their own';
- there have been reading materials and counselling services for those in need;
- 'some effort is put in support to students'; and
- student support 'has been effective though more needs to be done'.

Provision of student support services can only be meaningful to the students if the service is actually accessible to the students. An excellent but inaccessible service is not useful to the students. According to Robertshaw (2000:1) a lot of questions should be asked in relation to how easily students can access the support services.

In addition to all these strengths discussed in 6.5.6a – f, a few other strengths were pointed out albeit by very small proportions of the respondents. These strengths are:

- There are attempts at good management and administration of the services
- Tutors are available during the face to face sessions
- There have been minimal attempts at integrating ICTs

6.5.7 Strengths of assessment and examinations in the B.Ed (External)

Assessment and examination in the B.Ed (External) is carried out through:

- Continuous Assessment (coursework and tests) which account for 40% of the final examination mark
- Written unseen examinations that account for 60% of the final examination mark.

The programme is governed by the *'general regulations of the University and in addition, by the regulations of the School of Education'* (Department of Distance Education 2000:4). The pass mark is therefore 50% and the award is classified as follows:

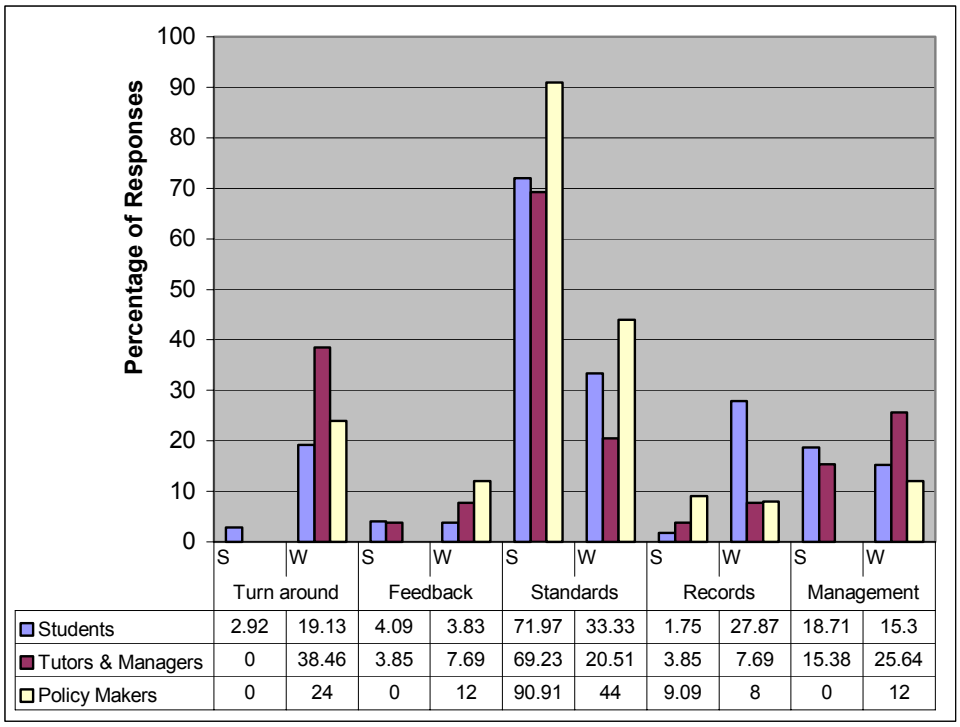
Table 6.3 Classification of the Makerere University Bachelors Degree

	Class		Grade Point Average (GPA)	Marks
Honours	First Class		4.40 - 5.0	80% - 100%
Honours	Second Class	Upper Division	3.60 - 4.39	70% - 79%
		Lower Division	2.80 - 3.59	60% - 69%
Pass			2.0 - 2.79	50% – 59%

Source: Department of Distance Education (2000:6)

The students, policy makers and tutors and managers who participated in this study were asked to reflect on this assessment and examination system, processes and regulations and identify what to them constitute strengths and weaknesses. See the interview schedule item 22c and 23c the tutors and managers' questionnaire item 23d and 24d, the students' questionnaire item 21d and prospective students' questionnaire item 23 for the questions (appendices II –VI). The results of the answers to these questions are given in figure 6.6.

Figure 6.6: Strengths and weaknesses regarding assessment and examinations in the B.Ed (External)



	S	W	S	W	S	W	S	W	S	W
	Turn around		Feedback		Standards		Records		Management	
Students	2.92	19.13	4.09	3.83	71.97	33.33	1.75	27.87	18.71	15.3
Tutors & Managers	0	38.46	3.85	7.69	69.23	20.51	3.85	7.69	15.38	25.64
Policy Makers	0	24	0	12	90.91	44	9.09	8	0	12

S - Strength W - Weakness

Each of the strengths identified will be discussed now and the weaknesses will be discussed later in section 6.6.

a) Assignment turn around

As already pointed out assignments are important because they can give learners opportunity to reflect on their learning experiences (Manning 2001:61). However for this to be meaningful students should receive prompt feedback on these assignments. Assignment turn around therefore reflects the time that an assignment takes from the time it is set and given to students, through submission for marking, the marking itself

and return of the scripts to the students. In this study only a small number of the students (2.92% of the responses) saw this as strength in the programme. According to them, the assignments are well conducted although one student immediately adds '…but putting out results is always delayed so much'.

Closely related to assignment turn around is the feedback that students receive on assignments, tests and examinations.

b) Feedback on assignments, tests and examinations

This was also raised by a very small proportion of those who responded to the question, (4.09% of the student responses and 3.85% of the tutors and managers' responses). According to them some of the strengths with feedback on assignments and examinations is that,

- 'All assignments are marked and returned…'
- 'Assessment through assignments fosters self-motivated learning'. Self-motivation is critical in distance education since the students study for the most time on their own.

c) Standards of assignments, tests and examinations

In section 6.4.8d, assessment and examination was raised as one of the mechanisms of quality assurance that teacher education programmes in Uganda should put in place. In other words, any teacher education programme in the country could be judged to be either poor or mediocre depending on the standards and management of its assessment and examinations. The respondents were therefore asked to identify some of the strengths of the B.Ed (External) assessment and examinations system and according to the majority of those who answered this question, the standard of the assignments, tests and examinations in the B.Ed (External) is good. Overall, 71.93% of the student responses on what are strengths of B.Ed (External) were on standards, while policy makers' responses were 90.91% and the tutors and managers' 69.23%. According to them,

- 'Rigorous examinations. Fully controlled through Makerere University regulations which ensures fair assessment'.
- 'Assessment is continuously done through coursework and tests. And the awards of marks constitute 40% to exam mark. This is good so students always try to work hard to attain it.'
- 'Provides effective assessment and examinations upon which promotion of students from one level to another is based'.

- 'Ensures students receive valid award'.
- 'The assessment and exam are on the basis of improving and maintaining standards and distance education has tried to do this'.
- 'Strict measures regarding malpractice. This is very good.'
- 'Students compare well with the internal students'.
- Standardisation of final exams by external examiners'.

In addition to all these comments, some of the respondents believe that:

- 'Tests act as a balance in continuous assessment'. In section 6.4.6a, one of the weaknesses identified in distance education programmes is that assignments are open to cheating. Tests are therefore important since there is more control over their administration.
- 'Pass mark of 50% motivates everyone'.

Some respondents however variously described the standards of the assignments, tests, and examinations as 'fair', 'reasonably good', and 'adequate'. By implication, there is room for improvement. As can be seen in figure 6.6 a number of weaknesses were also identified and these will be discussed later in section 6.6.

These comments reflect that the respondents were concerned with the equivalence of the B.Ed (External) standards to the standards that apply to the internal programmes. It is also important to note that the programme is subject to the general university regulations and that external examiners are involved for purposes of quality assurance. As already discussed in 6.4.6b, it is important that standards are maintained for acceptance of the graduates. If the B.Ed (External) graduates were rejected as poorly trained teachers then the programme would collapse. It would not be possible for the programme to continue running if its graduates are not accepted by the education system.

d) Management of students' assignment and examination records

Management of record of marks is important in assessment and examinations particularly since the marks scored are used for award of the degree. Well-conducted assignments but poorly managed records are likely to create confusion and frustration to both students and tutors. It could even lead to the programme being discredited. However, only a minimal number of students (1.75% of the responses), policy makers (9.09% of their responses) and tutors and managers (3.85% of the responses) were of

the opinion that the assignment and examination records are well managed and have improved. According to them, in the programme, the 'introduction of record cards' and the 'efficient' staff have lead to improvement in the management of the students' records.

Closely related to all this is the overall management of assessment and examinations.

e) Management of assessment and examinations

The B.Ed (External) students are dispersed across different districts in the country. The management and administration of assessment and examinations in these circumstances is therefore a challenge since it includes:

- Coordinating all the tutors involved in the setting of assignments, tests and examinations.
- Ensuring that all the students receive the assignments that are set.
- Receiving unmarked assignments and distributing the marked ones.
- Managing the students' records
- Coordinating the marking of assignments, tests and examinations
- Conducting tests and examinations often in different venues.

Some of the respondents were of the view that the present management of assessment and examination is appropriate - 18.71% of students' responses and 15.38% of the tutors and managers' responses. The evidence of this strength according to them is:

- 'Exams and coursework are conducted under good supervision; with strict measures regarding malpractices'. In relation to this, one student actually confesses, 'I like the strictness with which exams are conducted'.
- 'Introduction of assignment cards and computers has reduced losses of results'.
- 'The provision of exam cards and need to be fully registered before sitting exams ensures that there is little or no exam malpractice'.
- 'Timetabling of examinations is fair. Students are notified of any changes in the timetable or examination venues'.

The areas of good management of assessment and examinations identified are with regard to supervision, records managements, timetabling and dissemination of information.

6.5.8 Conclusion

This section has focused on discussing some of the strengths of the B.Ed (External) that were identified by the respondents in this study. It is important that in all future plans for

the B.Ed (External) and to ensure that the programme is run much more effectively and efficiently, Makerere University reflects on what is already good in the programme, seeks to maintain these and where necessary improves them.

The guidelines discussed in chapter 8 are based partly on what is identified in these sections as the strengths of the B.Ed (External). However, in spite of all these strengths, the programme also has a number of weaknesses and these are discussed in the next section.

6.6 WEAKNESSES OF THE BACHELOR OF EDUCATION (EXTERNAL)

6.6.1 Introduction

As mentioned in section 6.5 students, policy makers and tutors and managers were asked to indicate what they see as strengths and weaknesses of the B.Ed (External). Each of the following areas where addressed in the questionnaires:

- The content of the programme;
- Practical work in the programme;
- Management and administration of the programme;
- Student support in the programme;
- Study materials development and provision in the programme; and
- Assessment and examinations of the programme.

See also the interview schedule item 23; the tutors and managers' questionnaire item 24;the students' questionnaire item 22; and prospective students' questionnaire item 23 for the questions (appendices II – VI). A total of 129 students, 17 tutors and managers and 16 policy makers responded to these questions. In addition a total of 15 prospective students responded to this question.

The weaknesses and problems identified in the programme will now be discussed in the next sub sections. The categories used in discussing the strengths were used in categorising the weaknesses as well and the distribution of the responses on weaknesses has already been reflected in figures 6.2 – 6.6. Reference will be made to these figures in the forthcoming discussions.

6.6.2 Weaknesses of the content of the B.Ed (External)

A number of weaknesses were identified and these are in relation to:

- Areas covered and skills acquired in the programme

- The relevance of the content
- Variety in the courses offered
- Quality assurance and standard of the content
- Methods used in covering the content
- Structure of the content

Each of these will now be briefly discussed.

a) Areas covered and skills acquired in the programme

The highest number of responses on weaknesses of the content of the programme was actually on weakness in the content covered and skills acquired in the programme. A number of the respondents were of the opinion that the content covered is too heavy and in some instances inadequate (60% of the students' responses, 58.82% of the policy makers' responses and 37.04% of the tutors and managers').

One of the criticisms is that the 'content is heavy and not adequately attended to…' In the words of another student, the content is 'narrow in perspective'. The programme may be overloaded because according to one policy maker, there is 'a lot of repetition of what was covered in the diploma training for example areas like professional studies, and methods of teaching'. All the students on the B.Ed (External) programme are diploma holders. The B.Ed (External) is therefore expected to *'…to upgrade the subject matter of the subjects they are teaching through acquisition of content and professional knowledge, skills, values and attitudes to teach/practise those disciplines that will be offered'* (Department of Distance Education 2000:3). It is therefore not appropriate for the programme to repeat what has already been covered at the diploma level.

This criticism of 'heavy content' and 'inadequate coverage' reflects what Dove (1986:244) and Odaet (1985:45) observed when they said that the teacher education curricula are sometimes irrelevant and overloaded. Closely related to this is the problem of heavy workload being left to students. According to one student, 'more than ¾ of work is left to the student which is a problem due to inadequate material'. Students covering most of the work should not be a problem in distance education because in this form of education students **are** expected to do most of the work on their own. However, the students see this as a weakness particularly because of inadequate material.

The programme is also accused of being too theoretical and not helping students acquire the skills they need. For example, according to some policy makers,

- 'Theory and practice not integrated – teacher therefore made "trainable not trained". Programme is 'too theoretical. Does not help the teachers become creative'. This criticism is similar to that which SAIDE expressed with regard to some of the distance education programmes run in South Africa in the early 1990s. According to SAIDE 1996:42-43), the courses were fragmented with no link between theory and practice
- 'Students are not given enough background to research.' Ironically, according to the B.Ed (External) curriculum, in the first year semester two the students take a course on research methods which is expected to give them background and theory of research in preparation for the practical research project done in the third year (Department of Distance Education 2000:5,18). It would therefore imply that either the course is being too theoretically handled with no link between the theory and practice, or the topics covered in the course do not adequately prepare the students for the practical project.

It is therefore of great concern that an INSET programme is being accused of only making the teacher 'trainable not trained'. This criticism has been labelled against Pre-Service Teacher Education and Training (PRESET) and INSET is expected to address this anomaly not perpetuate it.

b) The relevance of the content

Closely related to overloaded curricula and inadequate coverage is the problem of irrelevance of some courses. The highest number of responses on this was by the policy makers with 17.65% of their responses, students had 8.67% of their responses while the tutors and managers had 7.41%. The evidence of this irrelevance was in the choice of subject combinations and in the courses offered.

'Some teachers take combinations that are not relevant to the classroom e.g. Administration/Evaluation'. Also that the 'content does not cater for primary school teachers…' In chapter three section 3.6.5, the curriculum of B.Ed (External) is given and according to this curriculum, students can take subjects that are not taught in schools. This is now being viewed as a reflection of irrelevant courses for, the Ministry of Education and Sports requires that every teacher should study two teaching subjects to be registered as a graduate teacher. A circular sent out by the Ministry of Education and Sports states as one of its conditions the following:

> a head of institution, Deputy or teacher/lecturer who undertakes any long term course in subjects which are not related to his or her subject specialisation shall not be granted study leave'. If he or she insists and proceeds to complete the course, s/he will not be registered at that level of qualifications'. Lubanga 28th May 2002:2

Related to the problem of irrelevant subject combinations is the problem of some courses on offer being viewed as irrelevant. For example some of the students said, 'content in some semesters is not relevant. For example Geography year I semester I courses'; 'some content for example Philosophy of Education is tedious and yet not relevant'. It is not clear why the students are saying these courses are irrelevant. It could be, especially in the case of Philosophy of Education, because as Dove (1986:244) says *'some topics persist because they are hallowed by tradition even though their usefulness has passed'.* Alternatively, the courses are may be taught theoretically and not applied to the classroom situation so the students do not see their relevance to their practice.

The content of the B.Ed (External) was also said to lack variety in the courses offered. There are few electives and the subject combinations are focusing on areas like the art courses that are already 'saturated'. As one policy maker explained, the content is 'not meeting national needs'. Still focusing on 'saturated areas and not sufficiently covering really needed areas like Maths and Science'.

c) Quality assurance and standard of the content

In section 6.5.7, the strengths of the B.Ed (External) were discussed. A number of respondents reported that the content of the programme was of a high standard. Nevertheless, there is still concern that this is not totally the case and this is reflected in the responses received, with 10.67% of students' responses, 14.71% of the policy makers' and 18.52% of the tutors' and managers'.

According to some of the policy makers' the 'content does not seem to prepare teachers to teach 'A' Level'. This may be because as some students suggest, the content is 'a bit shallow'' and is 'rushed over'. In chapter 3 section 3.5.4 the different categories of teachers in the school system was discussed. Diploma holders are not expected to teach 'A' level classes however, after training in the B.Ed (External), secondary school teachers in the programme should now be able to teach 'A' Level classes. However there seems to be perceptions that these teachers cannot handle these classes. Unfortunately no study has been carried out to actually establish whether this view is based on simply attitudes or it is based on the teachers' inabilities.

In addition, some of the students suggest that it is problematic for the programme to be broad and for the students to be expected to work on their own. For example, some students said,

- 'Not all the contents are covered during face to face hence the students have to learn on their own'
- 'The syllabus is very wide but face-to-face is limited'.
- 'There is a wide curriculum to be covered as per the semester system and yet the time given for face-to-face is short'.
- 'Not all the content is covered since there is an assumption that students study by themselves'.

These comments raise very troubling implications. The students seem to have problems with 'working' or 'studying' on their own and are as a result heavily dependant on the face-to-face sessions. To them therefore being asked to study on their own is a reflection of weaknesses in the system. However, what about the concept that distance education demands that a student studies on his or her own? Also, according to Robertshaw (2000:4) one of the dangers of providing face-to-face sessions is that students can easily become dependant on them. This seems to be the problem now being faced in the B.Ed (External). Perhaps the Department of Distance Education is not preparing students to study on their own. Considering especially the fact that the rest of the education system does not entirely help students to work on their own. Coming to distance education must be resulting in 'culture shock' and the distance education providers must help learners cope with this 'culture shock'.

Another criticism raised is that 'students only read what they expect in exams'. This is perpetuating what has become a disease in Uganda's school system; the problem of an examination- oriented system (Ministry of Education and Sports 1999:6). Surely at this level and more so for an INSET programme, greater emphasis should be on active learning, skills development, and school-based education. Examinations should not be the focus of studying but unfortunately this seems to be the case for the B.Ed (External).

d) Distance learning study package

The B.Ed (External) has a study package that includes:

- **Print study materials:** Includes especially produced materials often referred to as 'Study Units'; handouts; relevant textbooks, photocopies of extracts
- **Audio Cassettes:** In some courses - not available for all courses
- **Face to face sessions:** Two centrally organised sessions each semester; especially arranged sessions at the study centres
- **Student study groups:** Organised by students in their localities and sometimes they involve a tutor

- **Assignments:** Various assignments are set in each course for both study purposes and for assessment
- **Self-directed learning:** As distance learners, students are expected to be largely self-driven and to study most of the time on their own

According to Holmberg (1986:1), distance education is based on multi-media approaches using a combination of:

- Print study materials
- Face-to-face meetings taking place at various locations
- Correspondence communication between learners and the institution
- Use of other media (and combination thereof) like telephone, radio, computers and TV for various activities.

This is what the External Degree Programme (EDP) in general and B.Ed (External) in particular has sought to emulate in the study package it has.

The respondents in the study where therefore asked to comment on this study package. In 12% of their responses, students said that the study package used to deliver the content were weak; policy makers had 5.88% of their responses while the tutors and managers had the highest responses with 22.22% of their responses on weaknesses.

According to them, the major problems are to do with inadequate study materials provision, poor methods of teaching used during the face-to-face sessions and inadequate face-to-face session.

- 'Content outlines are provided but the learning materials are not availed'. In the words of one of the tutors, 'lack of study materials including reference materials ' undermines quality.
- 'Face to face is not sufficient to cover the course'. This issue has also been discussed in section 6.4.5.
- 'Inadequate interaction with tutors'
- 'Lack of teaching practice'. Teaching practice or school practice also called the practicum is clearly important in teacher education because it serves many purposes (Ben-Peretz 1994:5993, Dove 1986:251). So the fact that it is missing from the B.Ed (External) should be regarded as a weakness in the programme. The teachers are therefore not necessarily encouraged to put to practice what they learn as they upgrade. To assume that since these are qualified teachers and therefore have no need for school practice is to imply that knowledge and teaching methods do not

change, learner profiles do not change and that the environment in which teaching/learning takes place does not change either.

- 'Some of the modules do not follow the distance education format. Some of them were copied from textbooks'. Distance education should be written in an interactive and friendly manner and these materials should perform all teaching functions (Holmberg 1986:108-111, 1995b:47, 2001:38-41, Rowntree 1986:11 –13). It is therefore inappropriate for distance education not to be developed in a distance education mode. Also, if the materials are simply 'copied from textbooks' this is tantamount to plagiarism by the course writers and if this is true, then the academic honesty of the writers is questionable and so are the quality assurance mechanisms for materials development employed by the Department of Distance Education.

The other weakness identified albeit by a very small proportion of students and tutors and managers was structuring of the content that these said is inappropriate.

e) Views of the prospective students on the weaknesses of the content of the B.Ed (External)

When the prospective students were asked to identify problems that students of B.Ed (External) face – item 23 of the prospective students' questionnaire (appendix IV) - a total of 15 of them answered this question. According to these prospective students, B.Ed (External) students face problems with the content of the programme because:

- 'Not all content is covered.'
- 'Some of the content covered is a repetition of what is already covered at diploma level'. The curriculum should therefore be reviewed to avoid these repetitions.
- Research in the B.Ed (External) 'is compulsory and yet some students find it difficult'. As already discussed in section 6.6.2a, the B.Ed (External) students take a course on research methods which is meant to give them a background on research however many still face problems when carrying out the practical project work.
- Programme is too long. Although other prospective students were of the view that the programme is actually too short since distance learners need more time for study.

As already discussed in sub sections 6.6.2a-d, these issues were raised by the other respondents as well.

6.6.3 Weaknesses of practical work in B.Ed (External)

Just as with strengths of practical work in the B.Ed (External), there were only a few students and a few tutors and managers who responded to this question. Nevertheless, some weaknesses were identified and these include:

- Inadequate time for the practical work.
- Face to face sessions are too short and since the practical work is done during this time, the time is inadequate.
- Practical work is also done hurriedly.
- Staff is also inadequate.
- Study materials and materials for practical work are also inadequate.
- Some of the facilities are not available at all. 'For example no access to language laboratory so as to practice language skills'.

Some of the students were also not satisfied with the standards of the practical work because according to some of them,

- 'Practical skills are not articulated properly since the number (of students) is massive, time too short and tutors few'.
- 'School practice is not done yet some of the students are no longer practising teachers.

As a result of these inadequacies in the practical work, the courses are largely theoretically handled and the methods learnt are not implemented in schools.

6.6.4 Weaknesses of the management and administration of B.Ed (External)

Figure 6.3 presents the strengths and weaknesses of the management of B.Ed (External). The weaknesses will be discussed using the same categories used in the discussion of the strengths.

a) Structure and organisation of the Department and the programme

The respondents who answered this question identified a number of weaknesses and the following is the distribution of the responses received:

- 19.19% of the students' responses;
- 22.5% of the policy makers' responses and
- 31.485 of the tutors' and managers responses.

One of the major problems identified is to do with the bureaucracy in the University and in the Department, which according to one student, results in delayed decision-making and implementation of decisions. Another student confessed, 'administration is quite

away from the students and this is bad'. Bureaucracy here therefore implies the gap between the learners and administrators is too wide. Moore (1996:22) says in distance education there is a transactional distance to be crossed this is *'…a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of the instructor and those of the learner'.* It is therefore important for the Department to design strategies of bridging this gap.

Another problem identified is the inadequate involvement of students in the administration of the programme. The programme has student subject leaders and group coordinators however, according to one of the students, 'student leaders not known by the guild government'. The student guild government is supposed to be the students' voice at the university unfortunately, this government caters more for internal students and the external students' leaders are not recognised. Closely related to this is the view that the administration seems 'reluctant to help' the students because the face-to-face sessions are held off campus which forces the students to walk long distances to the venues. The other problems raised are:

- 'Negative attitude of top university administration'. This may have arisen because the students are facing a number of challenges but do not seem to receive appropriate support from the top University administration.
- Administration is 'weak and disorganised'. 'Not well organised and not streamlined for example, no adequate preparation is made for face to face sessions so lecture rooms not always enough'.
- 'Inadequate space for managing the programme'.
- 'Department is overloaded so issues are rushed over with little attention to them'.
- 'Slow payment for marking scripts'.
- 'Programme is depending on part-time tutors whose commitment is elsewhere'. Although Makerere University is a dual mode university, the lecturers are not obliged to teach external students as well. This role is therefore taken as 'extra load' and is perhaps not attracting as much commitment as required.
- 'Roles and responsibilities of the different players in the programme do not seem to be clear'.

b) Weaknesses in the coordination and monitoring of activities

As mentioned in section 6.5.4, the B.Ed (External) is run on a collaborative basis drawing different players. For this to work well, roles and responsibilities ought to be very clear and there ought also to be good coordination and monitoring of all the activities.

Unfortunately according to the respondents in this study, (11.63% of student responses, 2.5% of policy makers' and 11.11% of tutors and managers') the programme is not well coordinated and nor is it well monitored. Evidence of this weakness is:

- 'Regular evaluation of the programme is still lacking'. 'Workshops and seminars for monitoring and evaluation are not regularly held'. According to Seaborne (1997:85), monitoring of service delivery in distance education programmes is critical to establish whether the standards set are being met. So the fact that according to these respondents, the B.Ed (External) programme is not regularly monitored and evaluated would imply that it is likely to be difficult to ascertain how far the programme's standards are being met.
- The Department did not consult with the Ministry of Education and Sports on subject combinations.
- 'Lack of adequate coordination between the Department (B.Ed Ext) and the lecturers'.
- 'Face to face timetable not balanced. Some days redundant others congested'. This issue is discussed in greater detail in sub section 6.6.6a.

c) Weaknesses in staffing in B.Ed (External)

Staff involved in the B.Ed (External) is drawn from different departments including:

- Institute of Adult and Continuing Education especially the Department of Distance Education
- Other Makerere University Central Administration Departments and these are, Bursar's Department, Academic Registrar's Department and Dean of Students' Department.
- School of Education from which many of the tutors, writers, and reviewers are drawn
- Other Faculties in the University also from which some of the tutors, writers, and reviewers are drawn
- Kyambogo University, and various other educational institutions and Departments. Tutors, writers and reviewers are also drawn from these institutions.

The major issues raised by the respondents in relation to this included competence of the staff, the number, level of commitment, motivation and gender. According to the these respondents (15.12% of the student responses, 35% of the policy makers' and 14.81% of the tutors and managers) there are a number of weaknesses with the staffing condition and these include:

- Inadequate training of staff involved. As far as some of the respondents were concerned, some of the staff demonstrate that they do not have the required knowledge and skills to handle adult distance learners due to lack of orientation and training. This echoes what Bottomley and Calvert (2003:3) raise when they argue that staff serving in distance education programmes should have both professional skills and knowledge and skills in distance education.
- Inadequate staff. The programme has a large enrolment but the tutors are too few and this leads to 'delay of results and not covering the course outlines in time'. One student also said that the management is 'disorganised because it has insufficient manpower'.
- Lack of total commitment from part time staff. Nearly all the tutors are part time and according to this study, these tutors are not totally committed to the programme. As one policy maker said, the Department is 'depending on part-time tutors/writers whose commitment is elsewhere'. This is a problem that the University of Papua New Guinea also faced. The university staff in other departments regarded their involvement in the external studies programmes as 'extra work'; and were therefore reluctant to participate (Pena 1993 as quoted by Aguti 1996:57).
- 'Staff is not gender balanced. The overcrowding of the Department with very many women makes the programme bad for many of these women are arrogant'. This is a debatable issue. Is the arrogance a result of their being women or does the problem lie elsewhere?
- Poor motivation of staff because of delays in payments for work done.

Staffing in the B.Ed (External) is clearly facing a number of challenges and considering the centrality of staff in any programme, Makerere University needs to plan to deal with these challenges.

d) Weaknesses in information dissemination and public relations

The students were particularly unhappy with information dissemination and public relations in the Department and they had 23.26% of their responses on this, the policy makers had 5% of their responses and the tutors and managers had 12.96% of their responses. The evidence of this weakness is that:

- 'A lot of information that students need is not always given'. Also that even the little information available is not given in time, is sometimes inconsistent and as a result confusing.
- 'Inadequate sensitisation of the university community'. So the rest of the university community does not fully know or understand the challenges faced by the distance

learners. In her hand over report the outgoing Head of the Department of Distance Education highlights this as one of the continuing challenges in the Department. According to her, *'although the programme has been institutionalised as a Makerere University program many of the executives do not understand how it should operate'* (Bbuye December 2002:9)

- Poor communication with tutors/supervisors.

The result of all this poor information flow according to one student is 'a lot of confusion in the management'.

The students in particular were also unhappy about the attitude of some staff members whom they described as 'rude', 'harsh', 'do not posses the humanitarian approach to dealing with people', 'barking', threatening to the students, and not considerate. All these descriptions do not reflect caring and understanding instead there is clearly no empathy. These are attitudes that cannot lead to a harmonious working relationship yet as Holmberg (2001:38-41) says, empathy is critical as a pre-condition for effective presentation of learning matter and for provision of learner support.

e) Fees and costing of the B.Ed (External)

Students enrolling on the B.Ed (External) programme have to pay fees and meet other costs. As already shown in table 3.6, the different costs and fees include:

- **Tuition fees**: Sh. 400,000= each academic year. Paid in two instalments – first semester Sh.250,000=, 2nd Semester Sh.150,000=
- **Other fees:** Sh.50,000= registration for 1st Semester; Sh. 12,000= for 2nd Semester; Sh.60,000= for examinations each academic year; Sh.4,000= for new identity card; sh.1,500 for renewal of identity card
- **Other costs:** Upkeep during face-to-face sessions and during examination periods; transport to and from venues for face to face; purchase of relevant textbooks and photocopying of other literature.

Note that at the time of writing this report, the exchange rate was 1US$ = 2,000 Uganda Shillings.

When asked to identify some of the weaknesses in the management and administration of the B.Ed (External), a small proportion of students (3.49% of their responses) and policy makers (5% of their responses) were of the view that fees and costing in B.Ed (External) is problematic because the fees are high and students have to pay up by certain deadlines regardless of whether the teachers' salaries have been paid or not.

Also that because of additional costs, for example, cost of accommodation during the face-to-face sessions the programme is overall too expensive for students. This is in agreement with Robinson (1996:15) who argues that the more face-to-face sessions in a course the more costly the course.

In relation to this, some of the students were of the view that financial records are poorly maintained. The Department of Distance Education still keeps its financial records manually with hardly any integration of ICTs. It does not therefore benefit from what computerised financial systems would offer – easier, quicker and accurate recording and tracking of revenues and expenditures (Bates 2000:151).

Besides all the weakness in the management and administration of B.Ed (External) already discussed so far, a few others were identified and these are:

- Huge student numbers that the administration does not seem capable of handling.
- Lack of flexibility in the programme because of deadlines for submitting payments, registration, submitting assignments, and times/periods for examinations
- Overall poor service delivery.

f) Views of the prospective students on weaknesses in the management and administration of the B.Ed (External)

Prospective students were also of the view that B.Ed (External) students face problems with the administration and management of the programme because,

- services are highly centralised;
- records are poorly managed and maintained
- students have problems paying fees; and
- because of limited intake of students.

To deal with these problems, the prospective students were of the view that:

- Management is decentralised by setting up offices at the districts.
- Reduce the cost of the programme so as to make it affordable to the teachers.
- Students should be sponsored and they should be given study leave. This latter recommendation would however defeat the purpose of INSET by distance that is to provide training and education while the teachers continue to serve in the schools.

6.6.5 Weaknesses of study materials development and provision in B.Ed (External)

A number of weaknesses in the development and provision of study materials were identified and each of these weaknesses will be briefly discussed. See also figure 6.4 for

the distribution of these weaknesses and the interview schedule item 23c; the tutors and managers' questionnaire item 24d;the students' questionnaire item 22d; and prospective students' questionnaire item 23 for the questions (appendices II – VI) for the questions.

a) Staff for materials development and provision

This problem was particularly highlighted by policy makers (with 6.06% of their responses) and tutors and managers (with 9.52% of their responses). According to them, the problems are:

- Inadequate staff and inadequate training of the said staff.
- 'Lack of encouragement and motivation for authors'. The payments are slow and there is only inadequate follow-up of writers and so writing of materials is slow.
- 'Training sessions for writers are too short'. Writers are expected to write outside the workshops so many have failed to fulfil their obligations/commitments.

b) Weaknesses with quality of study materials

According to Rowntree (1986:32-66) self-instructional materials should be of high quality that among other things:

- has content that is well balanced, well structured and not overloaded;
- Incorporates learner activities that will encourage the learners to engage in active learning; and
- is highly readable.

In this study, poor quality was one of the weaknesses of the study materials of the B.Ed (External) that the respondents pointed out (11.96% of the students' responses, 3.03% of the policy makers' and 4.76% of the tutors and managers'). According to them:

- some of the material is not entirely relevant. For example, some of the material brought in from Nairobi University at the launch of the EDP was not all relevant;
- materials written are 'shallow'; and 'sometimes old and obsolete textbooks are provided';
- some of the material that has been developed has typographical errors;

Study materials, regardless of the technology used to deliver the material is expected to be central to distance education because study material is one way in which the distance between the learners and the institution/tutors is bridged (Keegan 1996:130, Robinson 1996:7, SAIDE 1996:21). So if the study materials being developed and provided to

students are of poor quality, the students are likely not to benefit fully from these study materials.

c) Weaknesses in the development of study materials for the B.Ed (External)

According to the respondents in this study, the entire development process is slow, poorly monitored, and has failed to satisfy the needs in the programme. As one tutor put it, 'slow development of study materials. Takes too long to prepare a single material. Modules take too long being written, reviewed and typeset for publication'. In addition some of the policy makers were of the view that the Department does not seem to have a '…clear plan/programme' for the production of study materials. So instead the 'material seems to be produced in an *ad hoc* manner'.

Developing study materials is a long and tedious process, and so there should always be lead time for their production. Study materials should be developed before students are enrolled (Perraton, Creed and Robinson 2002:50). At the Open University, UK for example, courses are approved three years before the first students are admitted and in that time, the course material is developed (O'Shea and Downes 1997:60). In the case of Makerere University, I believe part of the problem is because the study materials are being developed with students already on the programme and so both the students and tutors expect the study material to be ready in the shortest time possible but certainly not after three years as in the case of the Open University, UK. Makerere's predicament with study materials seems to reflect what Kamau (2001:50) says is hasty procedures that result in programmes being launched before study materials is developed.

The respondents were also dissatisfied with the conditions under which the study materials are being developed. As discussed already in 6.6.5a above, writers are expected to continue writing outside of the training workshops and this is not happening.

The responses given on weaknesses in the development and provision of study materials in the B.Ed (External) were distributed as follows:

- 30.95% of the tutors and managers' responses
- only 4.78% of the students' responses; and
- 9.09% of the policy makers' responses.

d) Weaknesses in the funding for study materials development and provision for the B.Ed (External)

This slow process of development of study materials may be linked to the problem of funding because according to the respondents, there is limited funding available for the

development of study materials. According to a number of authors, start up costs in distance education are often high because of initial investments on technology to be used and cost of developing the study materials (Bates 2000:19, Berge 2001b:19, Orivel 1994:1572). Unfortunately the Department of Distance Education does not seem to have adequate funding for this purpose although it allocates 16% of all income remitted to the Department to study materials development and provision. From the B.Ed (External) alone, this amounts to about US$ 80,000 annually; but still seems inadequate for the needs that have to be met.

Students also have problems with this because, since the study materials are inadequate, students have to photocopy a lot of other materials and this to them is '…very costly'. Instead, one student suggests, modules should be sold to students at subsidised prices to enable as many students as possible to afford'.

e) Study materials that not user friendly

According to Rowntree (1986:207) study materials should be readable, however according to the respondents in this study, some of the study materials are not readable and user friendly. Very few comments were received on this with only 1.44% of the student responses and 2.38% of the tutors and managers' responses. Nevertheless, these few say,

- Language used in the some of the modules is not user friendly and needs to be scaled down'.
- 'Material should be interesting and motivating'.

f) Inadequate access to the study materials

The problem of access has already been implied in all the discussions of development and funding of the study materials. According to those who raised this issue, access is poor. The responses given on inadequate access to the study materials in the B.Ed (External) were distributed as follows:

- 71.29% of the students' responses;
- 63.64% of the policy makers'; and
- 42.86% of the tutors and managers'.

Some of the weaknesses identified are:

- Inadequate materials, 'few copies of those available, inadequate reference books, study modules/units especially in the teaching subjects…' One tutor exclaims, 'very sad situation. Inadequate study materials in relation to the numbers on the programme'.
- 'Some salient references critical to programmes are missing in the book bank'.
- 'Distribution is poor because of lack of regional centres'.
- 'Some courses are launched without the study materials'. If the study module/unit is the instructor (Rowntree 1986:11 –13), then study materials should be developed **before** courses are launched.
- 'Library facilities are centralised and services are poor. No library facilities in the districts'.
- Makerere external students are not **given** the study material developed, instead they can **borrow** these from the Department through a system referred to as "Book Bank". However, 'limited time is given to students to borrow books from the book bank'. 'Management of the book bank is very hard for a book returned after deadline.'

Distance learners should not be borrowing the study modules but should be given these as part of the study package. According to Robinson (1996:10), one of the criteria for a successful distance education system is that all learners should be provided with all the required study materials. Makerere has however been forced lend students study materials because of its inability to cope with the demands. But as one student said, 'distance education without modules is making life of the student very hard since the module is the instructor. This is dangerous to Makerere should another university begin a similar programme with provision of study materials'. This student's comment is a threat and challenge to Makerere to revisit its strategies of materials provision.

The last problem identified with regard to the development and provision of study materials has also been alluded to and this is lack of variety in the study materials and lack of integration of ICTs. Print media is almost the only media used. A few audiocassettes are produced in only limited courses.

g) Views of the prospective students on weaknesses in the development and provision of study materials for the B.Ed (External)

The prospective students were of the view that the major problem related to study materials that the B.Ed (External) students face is poor access to study materials

including poor access to reference materials. Makerere should therefore, according to them endeavour to provide all relevant study materials to all the students.

6.6.6 Weaknesses of student support in the B.Ed (External)

As already mentioned in sections 6.3.5 and 6.4.5, student support is central in all distance education programmes. The respondents in this study were asked to identify the weaknesses in the student support system in the B.Ed (External). See also the interview schedule item 23d; the tutors and managers' questionnaire item 24e;the students' questionnaire item 22e; and prospective students' questionnaire item 23 for the questions (appendices II – VI).

A number of weaknesses were identified in student support in the B.Ed (External) and these will be discussed in brief in the next sub sections. See figure 6.5 for the distribution of the responses.

a) Weaknesses of face-to-face sessions for B.Ed (External)

The responses given on weaknesses of face-to-face sessions for the B.Ed (External) were distributed as follows:

- 19.19% of the students' responses;
- 38.64% of the policy makers'; and
- 23.58% of the tutors and managers'.

One of the problems highlighted by the students, tutors and managers was the fact that the period for the sessions is too limited and that there is very little interaction between the students and their tutors. Face to face sessions are supposed to be supplementary to the study materials. However there seems to be a heavy dependence on these sessions (Robertshaw 2000:4) as reflected by the following comments:

- There is 'dependence on face to face sessions'
- 'Face to face sessions are on and off'
- Distance education should be carefully planned – or else it can produce half-baked teachers as the time for face-to-face appears not to be enough'.

This may be as a result of inadequate study materials as already discussed in section 6.6.5 but it could also be as a result of the learners' concept of what constitutes distance education. The comments seem to imply that as long as a topic has not been covered **during** the face-to-face sessions then it cannot be studied. It is as if nothing else goes on outside of the face-to-face sessions.

Another problem identified is the congestion of the classes during the face-to-face sessions. As mentioned in section 6.5.6, most of the face-to-face sessions are held centrally. This therefore implies bringing in all the students of any specific year. Since some of the classes are large, (some as large as 500) then the result is congestion in the lecture rooms, at the Department of Distance Education and at all the other service departments in the university. Also, related to this, because the sessions are centrally held, all the different subjects are timetabled for coverage and so the timetables are also congested- sometimes into the night- and 'so students do not have time to engage in wide reading'. See appendix VIII for a sample of a face-to-face timetable.

The respondents were also not happy because the face-to-face sessions are held in multiple venues outside the main University Campus. As one tutor said, 'face-to-face sessions are scattered across the entire city. Off campus face-to-face sessions are a menace to both students and tutors'. These sessions are a menace because tutors and students have to travel from their residences to the Department and to the face-to-face venues. Ultimately this becomes expensive, another concern raised by the respondents.

b) Weaknesses in communication and information flow in the B.Ed (External)

Communication and information flow is important in the coordination of student support however, according to a number of respondents, this is not well done. The responses given on weaknesses in communication and information flow in the B.Ed (External) were distributed as follows:

- 12.63% of the students' responses;
- only 6.82% of the policy makers'; and
- 9.8% of the tutors and managers'.

The major problems identified are:

- 'Information provision is centralised'. For a student to gain access to information, he/she must get in touch or physically visit the Department. This may have improved for students who have access to Internet because of the Department's web page **http://www.makerere.ac.ug/distance**. This web page has all the basic information that a student would need on the course. Although as discussed in chapter seven section 7.2 and as shown in figure 7.1 only 23.08% of the students in this sample have access to Internet.
- 'Delays in information delivery. Some of the information gets to the students when it is late'.

- Due to poor public relations in the Department, '…students do not seek provision of information and other services'. This implies that social interactions in the B.Ed (External) are poor and the psychological distance between the learners and the institutions is huge (Peters 1994:227, 1996:46).

c) Weaknesses of library services for B.Ed (External) students

Library services for the B.Ed (External) students are provided through the Main University Library, other University Libraries, the Departmental Book Bank, and through some public/institutional libraries that the Department is collaborating with. However according to the respondents, this system has some weaknesses and those identified are:

- 'Inadequate library services especially in up-country are not yet fully stocked in major subjects'.
- 'Inadequate funds for provision of adequate library services'.
- 'Inadequate time for consulting the libraries'.
- 'Poor study environment e.g. limited sitting capacity in the libraries'.

The responses given on weaknesses in library services in the B.Ed (External) were distributed as follows:

- 21.21% of the students' responses;
- only 9.09% of the policy makers'; and
- 7.84% of the tutors and managers'.

d) Weaknesses of study group meetings for B.Ed (External) students

Student group meetings are important as a means of breaking the isolation that distance learners often face (Robertshaw 2000:3). However according to the respondents in this study (14.14% of student responses, 2.27% of policy makers' and 11.96% of tutors and managers') these study group meetings for the B.Ed (External) students is a weakness because:

- Meetings are too few because 'it is difficult for students to form study groups because of distances from one another'. According to (Robershaw 2000:1) one of the challenges that face these student group meetings is the geographical distribution of the students. This is a major challenge however, if Makerere and the students had access to Internet and other technologies, then meetings could still be organised for example as discussion forums on the Internet.

- 'Group meetings not given official status'. 'Group meetings not given professional guidance'. Student group meetings are organised and managed by students so the Department does not prescribe that these take place and neither are tutors always present.
- Weak students do not contribute in discussions; while shy ones remain shy and the bright ones dominate'. This I believe is typical of all groups and that is why knowledge of group dynamics is important for all who participate in the group.

e) Weaknesses in guidance and counselling for the B.Ed (External) students

According to (SAIDE 1996:74) counselling should be part of the student support system, however in this study, and according to the respondents, guidance and counselling for B.Ed (External) is limited and inadequate (10.1% of student responses, 6.82% of policy makers' and 7.84% of tutors and managers'). According to one of the tutors, 'students seem to be struggling in relation to counselling and library services. They are not facilitated' and this as one student said, is the reason some of the students drop out.

f) Weaknesses in access to student support services for the B.Ed (External) students

As a result of all the weaknesses in student support for the B.Ed (External) students discussed so far, overall therefore access to services is poor because:

- Student services are not decentralised since outreach or regional centres are not active.
- 'Students of B.Ed external not allowed access to their halls of residence yet they subscribe to its maintenance each year. They should be accommodated during face-to-face sessions'.

g) Weaknesses in organisation and management of student support services for the B.Ed (External) students

As a support institution, Makerere University has to ensure efficient organisation and management of all the programme activities including provision of student support (Keegan 1996:131). However, according to a number of the respondents (8.59% of student responses, 18.18% of policy makers' and 17.65% of tutors and managers') this organisation and management is weak because:

- Of 'lack of policy on student support'. Robinson (1996:18) identifies lack of policy as one of the factors that can lead to deficiencies in distance education.

- The students are too many for the staff available to manage the programme. Distance education is supposed to work on economies of scale so the higher the enrolment the cheaper it is likely to be (Perraton 2000:118). However, the enrolments should be at levels that the institution can manage.
- 'Students are scattered across the entire country' which makes it difficult to manage them and to manage student support services for them. The challenge of scattered students populations is typical of distance education students (De Wolf 1994:1558, Perraton 2000:136).
- 'Limited and centralised services'. Outreach centres for provision of support are therefore 'not very active'.
- 'Facilities that students need are not put in place prior to admission of students'.
- Student leaders are not adequately involved in the management of the programme. Also, 'external student body not represented anywhere in the university administration'.

h) Views of the prospective students on student support services for the B.Ed (External) students

According to the prospective students, the B.Ed (External) students face a number of problems some of which have to do with student support. According to them,

- transport to the University and accommodation during face-to-face are expensive;
- the time for interaction between the tutors and students is inadequate; and students also receive very little attention from lecturers.
- 'some students live in very far and remote places'; and
- the face-to-face programmes are 'too tight so students do not get opportunity to attend religious services';

To deal with these problems, the prospective students recommended that:

- Makerere should seek to understand the students and provide services according to the student needs.
- Makerere establish student study centres in all towns in the country so that support is provided through these centres. Face-to-face sessions would therefore be held at these centres thus decentralising the sessions.
- 'Increase the length of the face-to-face sessions'.
- Library services should also be provided at all the districts.
- Lecturers be available for consultations and should also visit students at their work stations.

- To deal with the problem of accommodation for students, the University should provide accommodation during the face-to-face sessions.

6.6.7 Weaknesses of assessment and examinations in the B.Ed (External)

As already shown in section 6.5.7, assessment and examinations in the B.Ed (External) consists of continuous assessment (coursework and tests), and examinations. These are also governed by the general Makerere University regulations and the School of Education regulations (Department of Distance Education 2000:4). The participants in this study were also asked to identify the weakness of this assessment and examinations system. Figure 6.6 also represents the distribution of the weaknesses identified. Each of these weaknesses will now be briefly discussed.

a) Weaknesses with assignment turn around

Tutors and managers had the highest number of responses on poor assignment turn around, with 38.46% of their responses on weaknesses of assessment and examinations in B.Ed (External); next was the policy makers with 24% of their responses and last the students with 19.13% of theirs. The major problem identified here was delays in assignments/test/examinations results. These delays are partly because:

- 'Assignment scripts take too long in the sorting office'.
- 'Delays in assignment submissions'.
- Tutors are few and are also involved in other programmes '…so delays in return of results'.

The other related problem is with late return of the assignments scripts. This is problematic considering that the Department takes assignments as a study tool and not simply an assessment tool. If scripts are returned too late then students cannot easily use the feedback and the scripts for study purposes. This is a problem similar to what UNISA faced in the early nineties for according to Fraser (April 1992), tutorial material often delayed in the post causing delays in the return of marked assignments. Assignments should ideally be marked as fast as possible and returned to the students because according to Rumble (1992:66) while quoting Rekkedal (1993), long assignment turn around periods could lead to student drop-out. Assignment turn around is therefore an issue that the Department of Distance Education needs to address.

b) Weaknesses with feedback on assignments, tests and examinations

As a result of the delays in the return of the assignments, feedback is therefore delayed, even then, the comments given in the assignments are not comprehensive and do not

therefore provide any guidance to the students; in the words of one policy maker, '…no motivation or guidance in the comments given'. According to Rumble (1992:66), one of the functions of correspondence tuition is to provide help to the students through the comments given.

Also, according to some students in this study, the assignments results are sometimes released long after results have been processed. Consequently some students fail not because they performed poorly in the continuous assessment and in the examinations but because the assignment results were not submitted in time.

In addition, some students also expressed the fear that there is 'bias in marking some assignments'. It is not clear what this bias is exactly and it is perhaps something that the Department of Distance Education should look into. Especially as will be discussed in the next sub section (section 6.6.7c), some students think there are examinations 'leakages'.

The highest percentage of responses on this were from the policy makers with 12% of their responses, followed by tutors and managers with 7.69% of their responses and students with 3.83% of their responses.

c) Weaknesses with standards of assignments, tests and examinations

Overall, from comments received on weaknesses of assessment and examinations, this issue had the highest responses with 33.33% of student responses, 44% of policy makers' responses and 20.51% of tutors and managers' responses. See figure 6.6.

One of the problems raised was to do with the standards of the examinations that were described as 'heavy', 'inappropriate', 'ineffective' and that the Department does not ensure 'standardised setting'. These are some of the comments received expressing these sentiments:

- 'Foundations of Education is too heavy, and has too many parts'
- Incorporation of some subjects like professional subjects into one examination instead of separating them. This course is therefore very heavy.'
- 'Language used in exams is sometimes too difficult'
- 'Assessment is not uniform and is ineffective…'
- 'Likely to be ineffective because of large numbers'.

Examinations should not be heavy, inappropriate and ineffective because each examination should be appropriate to the level and standards expected. It is interesting to note that one of the concerns raised with regard to the standard of the content is that some of the content is repeated and this was with particular reference to professional subjects (see section 6.6.2a) However, the same courses have now been dubbed heavy. Nevertheless, it is apparent that professional studies is a problematic area and needs further evaluation.

Closely related to this, it was also suggested that the marking and grading of assignments, tests and examinations was not fair and consistent. According to one student, 'marking does not seem to be fair and consistent' and that some lecturers 'leak exam to their relatives'. The other intriguing and puzzling issue is that some specific lecturers of psychology were cited as malicious. Is the problem with the subject or is the problem with the specific lecturers? All this brings to question the quality assurance mechanisms being employed and the level of seriousness and confidentiality with which the examinations are handled.

In addition, some students seem to imply that because these students are distance learners, the examinations should not be so 'tough'. Some of them for example said,

- 'Lecturers do not consider the students' situation of being far away from reading rooms when grading them'.
- 'Examinations have 'high pass mark'.
- 'Pass mark be reduced for distance education students as they have little time for face-to-face.
- Students should be given a list of questions from which lecturer will pick the examination questions.

These comments imply that because the B.Ed (External) is a distance education programme standards applied should be lower. Whereas it is vital that the providers take into account the character of the distance learner while planning and running the programme, this is no reason to lower standards. This would only reinforce the view that distance learners are second-class learners and the awards are of a lower quality.

Probably because the students find the courses heavy and the examinations tough, the respondents also said that the failure rate is too high and therefore there is a 'high rate of retakes'. Unfortunately no study has been carried out to establish the reasons for the high failure rate. However, as discussed in section 6.6.6a since the students are

dependant on face-to-face sessions, and study materials are inadequate, perhaps the students are subsequently not doing sufficient personal study and so come to the examinations very unprepared for the same.

d) Weaknesses with records management

In every distance education programme, assignments and examinations' records should be kept and analysed and the results of the analysis used to improve the system (Rumble 1992:67). In the B.Ed (External) programme, assessment and examination records are kept and managed by different people and sections in the University. Although, the Department now has computers for processing of results, a lot of the work is still manually handled and students cannot access results on line.

- Tutors are expected to keep records of work covered, assignments set and marks awarded; examinations given and marks awarded in the courses they teach.
- The Department of Distance Education whose mandate is to keep and maintain student records, receive and dispatch assignments for marking and eventual distribution of marked assignments to students.
- The Director of the Institute of Adult and Continuing Education, the School of Education and the Academic Registrar's office all receive copies of results and participate in the process of approval of results for award.

However, according to the respondents, there are a number of weaknesses in this whole process. With regard to this, students raised the highest number of responses with 27.87% of their responses, policy makers with 8% and tutors and managers with 7.69%.

Some of the weaknesses identified are:

- Errors in records of assignments and examinations and in addition, when this occurs, it is 'difficult for students to get attention when there are errors in assignment records or when they need to verify results. Staff processing results not easily available to students'.
- Sometimes results are missing and recovering these is tedious and slow.
- Some tutors misplace students' assignments.
- The credibility of some of the people involved in the processing of results has been questioned. One student claimed that some of the personnel are open to bribes.
- Record of registered students is not always readily available to tutors and so processing results is made more complicated. For example if a student's assignment results are missing is it because the student did not register, has dropped out, did not do the assignment or that that the assignment has simply not been delivered to the

tutor for marking? The concern here is with the tracking system that is being used to track the students' assignments. Perhaps the weaknesses raised here are a reflection that the system is not entirely efficient.

- The number of staff handling assessment and examinations records in the Department is too small for the student numbers on the programme.

e) Weaknesses with the management of assessment and examinations

Tutors and managers had the highest number of responses indicating that the management of assessment and examination of B.Ed (External) is weak. They had 25.64% of their responses on this while the students had 15.39% of their responses and the policy makers' were 12%. The concerns raised here were that:

- The assessment and examination process is highly centralised, 'so students from afar are disadvantaged'.
- The examinations are held only in Kampala but in dispersed centres that make management and administration of the examinations difficult and expensive to both the students and the university.
- Examinations are sometimes held during the school term causing disruptions in schools.
- Tutors are not promptly paid for work done which is demoralising to them.
- Students physically hand in assignments at the Department and this is expensive to the students. Although students can post their assignments to the Department, many do not and prefer to hand these in directly.
- Students have to wait for long to retake courses and even then, they have to pay for these retake examinations. A student that has to do a retake can only do so when next the course is offered – which is normally in the following academic year.
- Examinations are held on the Sabbath, (Saturday) which according to one student 'are a thorn in the flesh and a terrible menace – a constitutional breach'.

f) Views of the prospective students on weaknesses of assessment and examinations in the B.Ed (External)

Prospective students also identified some problems the B.Ed (External) students face with regard to assessment and examinations. According to them these students are given too many assignments and with their other commitments, have problems doing the assignments well and in time. As a result weak grades are obtained. Also, students have to post the assignments to the university, which is a challenge to some, and when assignments are marked, results are not promptly released.

The prospective students suggested that to help the external students cope with these challenges:

- Students should be given guidance on how to write assignments and they should also be given sufficient time in which to do so.
- Encourage group work so that students can support each other. Feedback to assignments should also be discussed.

The Bachelor of Education (External) is an INSET programme leading to a higher award. Therefore assessment and examinations is an important element in the programme. However, there are a number of loopholes that have been identified which need to be addressed if the programme is to gain higher credibility and if the programme is to meet the needs of the upgrading teachers and the schools they serve.

In addition to identifying strengths and weaknesses of the B.Ed (External), the respondents were also asked to express their views regarding whether the programme helps the trainees acquire competencies that they need as teachers. The next section will now discuss the findings on this.

6.6.8 Important teacher competencies and how the B.Ed (External) helps teachers acquire these competencies

According to the Teachers' Code of Conduct for Uganda's teachers, the teacher's principal duty is to help the child develop (Ssekamwa 2001:82). Teacher education programmes in Uganda are therefore expected to prepare teachers to fulfil this role so the competencies that teachers acquire during the training should be the kind that will enable them do so (Obwoya Kinyera, Auma-Okumu, et al. 2002:14).
The study therefore sought to establish the respondents' views about what they consider as:

- Important competencies a teacher should have. To establish this, students and tutors were asked a yes/no question for each of the competencies while the prospective students and the policy makers were asked to list the competencies a teacher should have.
- Whether the B.Ed (External) helps the teachers achieve these competencies or not; and
- If not the reasons for this failure.

See section 4.5.7 for the discussion on teacher competencies and also appendices II – VII for the questions asked (interview schedule and prospective students' questionnaire items 20 and 21b; tutors and managers' questionnaire item 22; students' questionnaire item 20).

The next sub sections will now discuss these study findings.

a) Important competencies

Table 6.4 gives the list of important competencies and the responses given by the students and the tutors and managers while table 6.5 gives the views of the prospective students and the policy makers. The questions asked did not seek to establish the **most** important competencies but simply what is believed to be generally important.

Table 6.4: Students, Tutors and Managers' Views on Importance of Competencies

COMPETENCY	PERCENTAGE OF FREQUENCIES			
	Students		Tutors & Managers	
	YES	NO	YES	NO
Communication	97.83	2.17	100	0
Knowledge of Subject Matter	96.74	3.26	100	0
Teaching skills	96.74	3.26	100	0
Assessing & Examining	94.51	5.49	100	0
Administering and managing educational activities	92.35	7.65	100	0
Problem solving	95.65	4.35	97.22	2.78
Knowledge of resources required to teach	94.57	5.43	97.22	2.78
Research	93.99	6.01	97.22	2.78
Designing learning materials	92.39	7.61	97.22	2.78
Critical Thinking	89.13	10.87	97.22	2.78
Curriculum development	90.56	9.44	94.44	5.56
Involving the community in the school	82.07	17.93	91.67	8.33

According to all the respondents, the three most important competencies are ability to communicate, knowledge of the subject matter and teaching skills; while the least important competency according to the students and the tutors is ability to involve the community in the school.

Prospective students and the policy makers were asked to indicate the competencies that they view as important and to categorise their views, the same categories as those given to students and tutors and managers were used.

As table 6.4 shows, it is interesting to note that both the prospective students and the policy makers were not of the view that it is important for teachers to have research and

critical thinking skills and also that it is not important for the teachers to be able to develop and design curricula.

Critical thinking skills are vital for teachers since their work involves daily critiquing study materials and student work; and helping pupils develop critical thinking skills. So it is disappointing especially that the policy makers do not think this is important. Surely teachers incapable of being critical are likely to be ineffective in the promotion of open mindedness! Policy makers are important in determining what happens in Uganda's teacher education so if they do not believe in the importance of some of these skills, then this is likely to impact what is eventually put into the teacher education programmes.

Table 6.5 now provides the distribution of the views of the prospective students and policy makers on competencies they consider as important.

Table 6.5: Prospective students and policy makers' views on important competencies

COMPETENCIES	**RESPONSES**			
	Prospective Students		**Policy Makers**	
	f	%	f	%
Knowledge of Subject Matter	14	9.27	21	17.65
Teaching skills	12	7.95	17	14.29
Communication	13	8.61	7	5.88
Assessing & Examining	0	0	6	5.04
Involving the community in the school	1	0.66	3	2.52
Designing learning materials	2	1.32	2	1.68
Knowledge of resources required to teach	3	1.99	1	0.84
Administering and managing educational activities	5	3.31	0	0
Problem solving	1	0.66	0	0
Research	0	0	0	0
Critical Thinking	0	0	0	0
Curriculum development	0	0	0	0

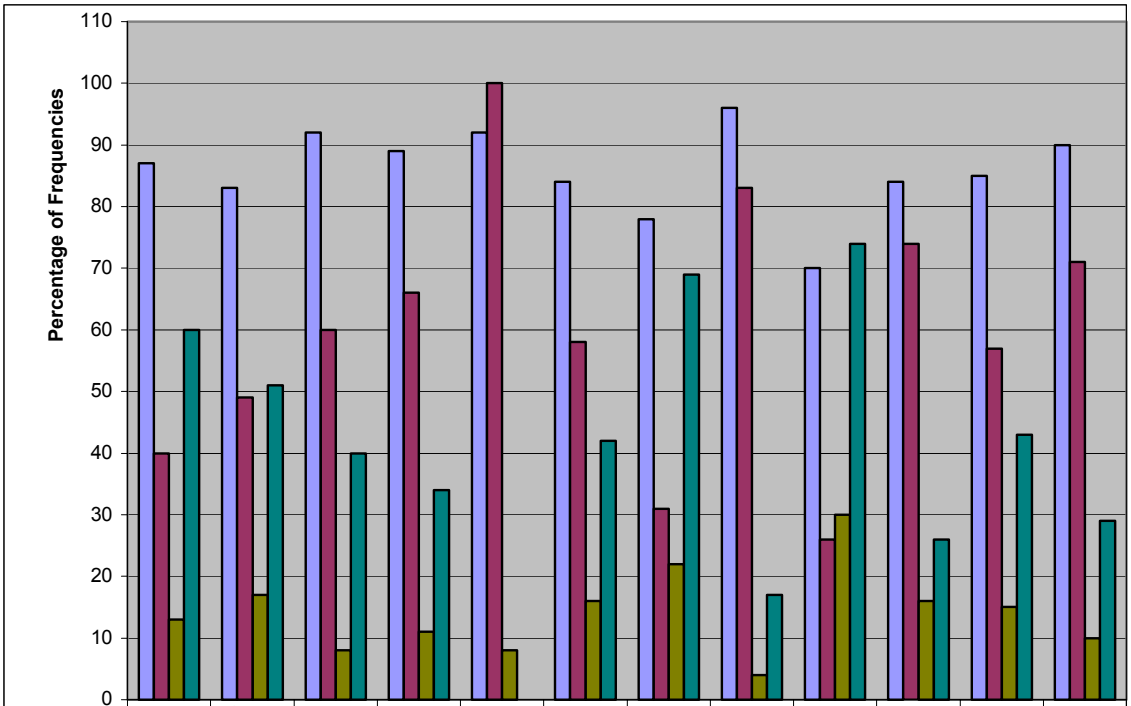
b) Students, tutors and managers' views on whether the B.Ed (External) helps teachers acquire the important competencies

Students and tutors and managers were asked to indicate whether the B.Ed (External) helps teachers acquire competencies and to give reason for saying that the programme does not help teachers acquire some of these competencies. According to the statistics, each competency had respondents who were of the view that the programme does not help the teachers acquire the said competencies but the study did not seek to establish

where B.Ed (External) fails most in equipping teachers with competencies. Figure 6.7 illustrates this.

The highest frequency in each group of respondents was on the programme's failure to equip the teachers with skills on helping involve the community in school activities. 74% of the tutors and managers and 30% of the students said the programme does not equip teachers with abilities to involve the community in school activities. It is significant to note that all viewed this competency as least important and this perhaps explains why the programme does not cater for it either. Since the tutors and managers see it as unimportant, they will not seek to have the programme cater for it; on the other hand, the students will not strive to acquire this competency because they do not see its importance.

Figure 6.7: Percentage of frequency of students and tutors and managers and their views on whether B.Ed (External) equips teachers with competencies



	Comm'n	Critical Thinking	Prob solving	Resources	Subj Matter	Teaching skills	Designing LM	Research	Community	Admin	Curriculum	Assessing
STUDENTS Y	87	83	92	89	92	84	78	96	70	84	85	90
TUTORS Y	40	49	60	66	100	58	31	83	26	74	57	71
STUDENTS N	13	17	8	11	8	16	22	4	30	16	15	10
TUTORS N	60	51	40	34	0	42	69	17	74	26	43	29

A number of reasons were put forward for the programme's failure to help teachers acquire these competencies and these reasons include:

- Theoretical courses
- Inadequate support to students
- Methods of teaching employed
- Inadequate study materials
- Curriculum does not emphasise skills
- Inadequate opportunities for practice
- Inadequate & poor staff
- Student inadequacies
- Inadequate facilities

Each of these reasons will be briefly discussed in the next sub sections.

Theoretical Courses

In sections 6.6.2 and 6.6.3 the weaknesses of the B.Ed (External) content and of practical work in the programme were discussed, in both instances, the respondents expressed fears that the programme is too theoretical. It is for this reason that the respondents said it therefore fails to help teachers acquire important skills. According to some of them,

- 'Emphasis is on acquisition of content.' The programme 'is focused on academic rather than education activities'.
- 'The programme is too theoretical, too bookish. Involves a lot of rote learning'.
- 'Programme is examination oriented'.
- 'No effort is put to developing those skills where attempts are made, the effort is far too inadequate'.

These criticisms seem to confirm fears expressed by Bates (1994:1577) and Perraton (2000:12) with regard to some distance education programmes. For according to them, whereas distance education programmes, have worked hard at developing study materials and providing students self-contained courses, this same practice is being feared to lead to*' lack of critical thinking' and* to *'rote learning'.* However, the B.Ed (External) seems to rely very heavily on face-to-face sessions so the 'rote learning' is not a result of the study materials alone but must be a result of an entire programme that is skewed towards theoretical courses.

Inadequate support to students

To strengthen the teaching/learning environment, student support is critical however as discussed earlier, student support for B.Ed (External) students is weak. It is for this reason that a number of the students and tutors and managers were of the view that a weak student support makes it difficult for the students to acquire the competencies that they need. The reasons for this failure is that:

- 'Face to face sessions are too short so most of the competencies cannot be covered'.
- 'Students are not followed up while they are away from University'. Also, students are given inadequate guidance and counselling.
- It is difficult for students to fully acquire research skills because 'supervisors of the research projects do not seem to have uniform guidelines on how to go about the students' research project'. This therefore implies the students are not sufficiently guided.

Related to inadequate student support, the other reason for poor acquisition of competencies is poor methods of teaching employed by the tutors.

Poor methods of teaching employed by the tutors

For teachers to acquire the various competencies, then methods of teaching and learning should promote acquisition of those competencies. However, according to the students, tutors and managers who responded to this question, the 'methods used do not encourage this' because:

- 'The programme caters for a large group of learners…' Since the classes are large teaching/learning does not promote interaction so the tutors use 'the lecture method which hiders critical thinking' and which is not practical.
- 'The teaching is examination oriented'.
- Training does not help teachers design learning materials.
- Some tutors 'handled the content superficially so it becomes difficult to learn from such'.
- 'Some tutors do not know the teaching skills at all and there is nothing much to learn from them'. Majority of the tutors in the programme are lecturers in universities and can therefore be said to be out of touch with the classroom practice and so unable to realistically help teachers acquire competencies needed in the classroom.

Inadequate study materials

The study materials are inadequate both in quality and quantity so the study materials do not hep the learners acquire the competencies needed. Since these materials are of poor quality as earlier discussed in section 6.6.5 the materials do not promote active learning which good study materials ought to.

Curriculum does not emphasise competencies

The curriculum of B.Ed (External) is given in chapter three section 3.6.5 and according to the respondents in this study, it is difficult for the B.Ed (External) to help teachers acquire all the important competencies because the curriculum does not emphasise these competencies. For example, according to some tutors, 'the programme does not emphasise those skills'. 'No component in the curriculum covers some of these skills'. For example, 'some of the skills completely left out e.g. community involvement', and students are not given 'opportunity for them to actively participate in curriculum development or communication skills'. Also, some of the skills are only briefly mentioned and not dealt with in detail.

As far as teaching skills is concerned, one student said, 'since students on B.Ed do not carry out supervised SP they tend to keep on teaching the way they have been without minding about improving on the teaching skills'. According to Bagwandeen and Louw (1993:10) and Iredale (1996:13) with time, the knowledge and skills that the teachers acquire are likely to become either obsolete or old fashioned, therefore a programme that does not help teachers review their teaching skills fails the teachers and the schools.

Related to the inadequate curriculum is the lack of opportunities for students to actively practice these competencies.

Inadequate opportunities for practice

The entire teaching/learning process does not offer the teachers sufficient opportunities to practice the competencies they need. According to the respondents this is because:

- There is not school practice so the teachers can not acquire 'teaching skills, designing learning materials as well as assessing and examining …'
- 'No community involvement in the study programme so students cannot acquire skills in involving the community in school'.
- 'Time for face to face sessions is limited' so students do not get sufficient time to practice and acquire the necessary competencies.

Some authors have said that distance education may be more effective at delivering facts or information but may not be so effective at helping learners acquire certain skills (Bates 1994:1577, Dove 1986:244, Garrison 1996:12, Henri and Kaye 1993:27-28, Holmberg 1993:331, Odaet 1985:45).

Student inadequacies

The failure to acquire the competencies is also attributed to student inadequacies. For example, according to the respondents,

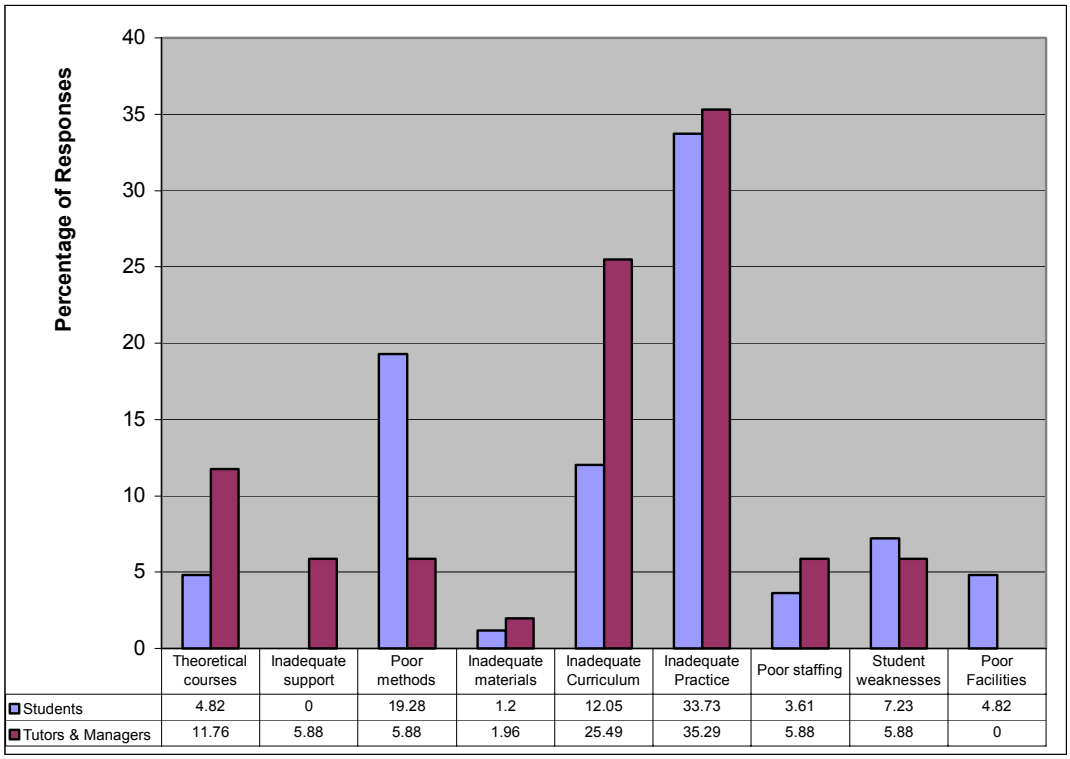
- 'Students' written work has too many grammatical errors…' Students do not therefore seem to have a good command of the language of study and this is inhibiting them.
- 'There is a likelihood that some students do not engage in their own research but merely copy research from former students'. As raised earlier in discussing weaknesses in assignments in sections 6.4.6 and 6.6.7, students are believed to cheat in assignments and examinations. This implies the students are not actively engaged in the learning process and so they cannot acquire the required competencies.
- 'Some people's background education is shaky'. According (Dove 1986:241), Iredale (1996:13), and Robinson and Latchem (2003a:4) a number of students joining teacher training colleges join with much lower passes than students joining other professional courses. This might explain why in this study, some respondents said that the educational background of some B.Ed (External) students is shaky. With this kind of background, such students need a lot of support if they are to acquire any competencies. See also figure 3.2 for the vicious cycle of poor quality education.
- 'Teachers enrolled for B.Ed are motivated by higher pay. Students keen to simply pass exams'. Students are therefore not keen on acquisition of competencies but only in passing examinations.

The respondents also had other reasons for the failure of B.Ed (External) to help teachers acquire important competencies. Some of these reasons are:

- Inadequate staff and facilities
- The Department is itself a poor example to the students.

Figure 6.8 now presents the distribution of the students, tutors and managers reasons for the programme's failure to help teachers acquire competencies.

Figure 6.8: Students' and tutors and managers' responses on why B.Ed (External) fails to help teachers acquire competencies



	Theoretical courses	Inadequate support	Poor methods	Inadequate materials	Inadequate Curriculum	Inadequate Practice	Poor staffing	Student weaknesses	Poor Facilities
Students	4.82	0	19.28	1.2	12.05	33.73	3.61	7.23	4.82
Tutors & Managers	11.76	5.88	5.88	1.96	25.49	35.29	5.88	5.88	0

Views of the policy makers and the prospective students

Policy makers and prospective students were asked to give reasons for their views. Some policy makers were of the view that the programme **does** help the teachers acquire competencies although some of them also added that this is not achieved fully. The policy makers and the prospective students gave a number of reasons for believing that the B.Ed actually helps teachers acquire the vital competencies that they need as teachers. According to them this is because:

- Courses offered help upgrade the teachers' subject knowledge and skills.
- The curriculum of the programme gives opportunity for the trainees to refresh their knowledge and skills.
- 'Since teachers study as they work, B.ED helps them immediately apply what they learn in the field'.

In addition to these reasons, some officials were of the view that since the number of students applying for the programme has remained high, then the public must believe the programme is good enough. Of course this may not be sufficient reason for Makerere to think that because it still receives applicants therefore all is well. May be Makerere continues to receive applicants because there is no alternative.

However, 20% of these policy makers did not believe that the B.Ed helps teachers acquire the necessary competencies. The reasons given are in agreement with the reasons given by both the students and the tutors and managers; and this is because according to policy makers,

- Courses offered are theoretical and so 'content and pedagogy (theory and practice) are divorced and not integrated in the delivery'.
- The B.Ed graduates are weak in content knowledge because the B.Ed curriculum emphasises professional subjects
- The programme does not also seem to have sufficient academic and administrative staff so students are receiving inadequate attention.
- Students are not given sufficient support and opportunity to practice and so develop the competencies.
- Some of the students on this programme joined the programme with very weak academic backgrounds so are disadvantaged right from the beginning. Such students '…do not therefore rise to excellent levels…'
- Many of these students also have numerous other responsibilities and so are unable to concentrate so as to develop the competencies.

From all these it is evident that whereas the B.Ed (External) has helped teachers acquire some key competencies, this is not wholly achieved because of inadequacies in the curriculum, methods of teaching, quality and access to study materials, student support services and because of the inadequate opportunities for practice. The challenge therefore is for the programme to address these inadequacies so as to ensure that the teachers graduating from the programme are competent enough to serve as well informed, highly skilled and motivated teachers.

6.6.9 How to cater for the needs of teachers and schools

The challenge facing teacher education is providing training that meets the needs of the teacher trainee but also meets the needs of the schools. Policy makers, tutors and managers were asked how best the needs of the teachers and the schools could be met and a number of strategies were recommended. Sixteen tutors and 12 policy makers responded to this question and their views are reflected in table 6.6. See also tutors and managers' questionnaire item 19 (appendix II), the interview schedule item 19 (appendix VI), for the questions and also appendix VII.

Table 6.6: Policy makers and tutors and managers' views on how best to cater for the needs of teachers and schools

STRATEGY	RESPONSES BY			
	Policy makers		Tutors & managers	
	f	%	f	%
Needs assessment and evaluation	24	32.43	28	45.16
Careful scheduling and programming	20	27.03	10	16.13
Relevant and well designed curricula	9	12.16	7	11.29
Efficient students support	7	9.46	6	9.68
Study materials provision	1	1.35	4	6.45
Recruitment, & training of staff	2	2.7	1	1.61
Other ways	11	14.86	6	9.68

In the next sub sections, each of the strategies recommended will be briefly discussed.

Needs assessment and evaluation

According to the respondents to this question, it is vital to identify the needs of both the teachers and the schools and to develop, plan and manage programmes according to the identified needs. In the view of some of the respondents in this study, it would be necessary:

- To 'carry out a feasibility study in conjunction with the Ministry of Education. Incorporate the findings in the course content'.
- That 'needs assessment should be carried out prior to retraining or upgrading. Identify training gaps and then design the appropriate strategies.'
- 'Students should not be forced to take up whatever the University is offering. Their choices should be based on their needs'.

In addition, this needs assessment and evaluation should also include outlining the roles and obligations of the different stakeholders; and there should be clear strategic plans for teachers' education indicating who should train and when. In this way, schools would not fall into the pit of having many teachers training and none to attend to the learners' needs (Robinson 1996:6).

Perraton et al. (2002:28) argue that before a decision is taken whether to use distance education, decision makers should establish the contribution that distance education will make to the different levels and types of education. This I believe involves matching the needs of the schools with what distance education can offer. Perraton et al. also add that decisions would need to be taken regarding the different roles of the different participants in the distance education programme.

Careful planning and scheduling

One of the complaints raised earlier with regard to the B.Ed (External) is that it sometimes takes teachers away from schools during the school terms. So to avoid this clash of interests, the respondents recommended:

- 'Coordination between institutions offering distance education and the Ministry of Education to work out calendars'. The Ministry of Education and Sports draws out the school calendars each year so, if Makerere University were to collaborate with the Ministry of Education and Sports while planning its B.Ed (External) programme activities then, clashes and complaints would be minimised.
- 'Plan programmes remembering that "children go for holidays but teachers do not go for holidays". The assumption that Makerere has always made is that the teachers are 'free' during the school holidays and so the face-to-face activities are organised then. However, according to this official, this is not entirely so. Much more collaboration is therefore needed with the Ministry of Education and Sports.
- 'Plan and reduce workload of teachers on programmes to give them time to study'. Providers of distance education programmes cannot reduce the teachers' workload but if there is negotiation between all the stakeholders and also, as discussed earlier in chapter five section 5.6.4, there is policy governing study leave for teachers, then perhaps this can be addressed.
- 'Plan more time for practical teaching to ensure application of knowledge and skills being learnt'. The B.Ed (External) does not for instance include teaching practice in its programme activities and this has been viewed as a weakness in the programme. It is therefore recommended that, the programme carefully plan to integrate teaching practice to ensure application of knowledge and skills.
- 'Programmes should be longer so that a little is covered each year'. This would imply a lighter study load for each semester.

Relevant and well-designed curricula

One of the weaknesses raised is that some courses of the B.Ed (External) for instance are irrelevant and do not meet the needs of some of the teacher trainees. A weakness in teacher education programmes earlier identified by Dove (1986:244) and Odaet (1985:45). So according to the respondents, this can be dealt with by:

- Designing curricula that are relevant to the school needs. However a contrary view was expressed that ' University programmes should be aimed at educating the people and not training according to the classroom needs. University programmes

should go beyond the classroom'. These two views represent the dichotomy that exists in terms of what the curriculum for teacher education should contain.

- As part of the training programme, 'teachers known for good practice to support trainees/act as mentors this ensures application of proven skills'. In section 6.6.8b one of the reasons raised for the failure of B.Ed (External) to help teachers acquire competencies, is that some of the tutors have no knowledge of teaching skills. As Fraser (April 1992:126) observes some of the lecturers in the UNISA teacher education programme were out of touch with the *'…the realities of the trade'* since they had been out of the teaching profession for many years. Involving active teachers as mentors is one way of promoting partnership between the university staff and the schools and exploiting the advantages each group contributes to the teaching learning experience.

In addition to these strategies that have been discussed, the respondents also recommended that:

- Teachers should be trained in areas or subjects of need.
- Distance education programmes should have efficient student support systems.
- Study materials should be provided to all the students on the distance education programmes.
- Recruitment and training of staff of all the staff employed on the distance education programmes.

6.6.10 Conclusion

Since it's launching in 1991, the Bachelor of Education (External) has had a number of achievements however, this section has identified some of the weaknesses that have impeded its work. These weaknesses are in the areas of:

- The content of the programme;
- Practical work in the programme;
- Management and administration of the programme;
- Student support in the programme;
- Study materials development and provision in the programme; and
- Assessment and examinations of the programme.

As a result of these weaknesses, the programme has also been unable to effectively help teachers acquire some of the key competencies that they need as teachers.

This section has also explored some strategies that could be used to meet the training needs of both the teacher trainees and the schools in which they operate.

6.7 SUMMARY

This chapter explored the strengths and weaknesses of teacher education programmes that have been run by distance education in Uganda, and how these weaknesses can be addressed. The chapter also discussed the strengths and weaknesses of the B.Ed (External) in particular. However, although a number of these strengths and weaknesses were identified, it is important to remember that none of these can work exclusively on their own but should be looked at in relation to others. A holistic approach to dealing with the problems should be adopted because the different sub systems are interdependent. Focusing on one while neglecting the other is likely to be counter-productive.

CHAPTER SEVEN

INTEGRATION OF INFORMATION COMMUNICATION TECHNOLOGIES (ICTs) IN DISTANCE EDUCATION PROGRAMMES

7.1 INTRODUCTION

The growth of distance education has been associated with Information Communication Technologies (ICTs). In chapter two, the growth of distance education was traced and this growth shows the close relationship between ICTs and distance education. In fact, distance education cannot do without ICTs but the choice of the technology to use depends on a variety of factors including the '*desirability, feasibility, affordability and sustainability'* of the technology (Haddad and Zurich 2002:55).

In Uganda, as already shown in chapter 3 section 3.6, the teacher education programmes that have been run by distance education have not utilised a variety of technology but have largely depended on print and on face-to-face sessions. It was therefore important to establish what technology the stakeholders of the Bachelor of Education (External) Programme (B.Ed. External) have access to, what they believe can be used for B.Ed (External) and for what purpose and finally what prerequisites should be put in place for this technology to work. From the results already discussed in chapter six, it is evident that the teacher education programmes that have been offered in Uganda using distance education rely heavily on print. Integration of the ICTs in the programmes would place these programmes at the second and third generation of distance education. See also chapter two sections 2.3.4 – 2.3.6 for discussions on generations in distance education.

The respondents in this study were asked:

- which ICTs they have access to and where they can access the said technology;
- what ICTs should be used in the B.Ed (External) programme;
- why the ICTs should be used and the prerequisites that should be put in place for the technology to work in Uganda.

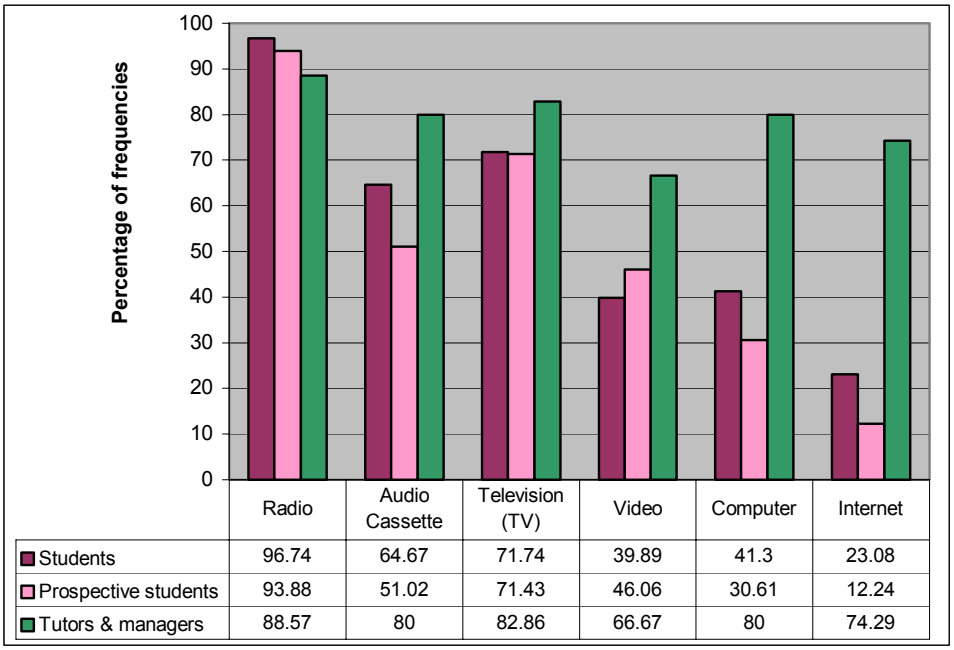
See appendices II – VI items 23 - 27 of the students' questionnaire, 25 - 29 of the prospective students' questionnaire, items 25 - 29 of the tutors and managers' questionnaire, and items 24 – 27 of the interview schedule.

The responses to these questions are therefore being presented in this chapter.

7.2 ACCESS TO ICTs

Access to ICTs is one of the major factors that must be taken into account when choosing the technology to be used (Bates 1994:1577, De Wolf 1994:1561, Meyer-Peyton 2000:85). According to the pilot study that was conducted during this study, questions on some ICTs such as teleconferencing and video conferencing were not understood and the respondents also said these technologies are currently inapplicable to Uganda because of costs and lack of infrastructure to support them (see also section 4.4.2 for the detail on the pilot study). A list of only some ICTs was hence provided and the respondents were asked to indicate whether they have access to it or not. They were also asked to indicate the location of this access as this predetermines the availability of the technology for study purposes. Figure 7.1 gives the respondents access to ICTs while table 7.2 gives the places where the ICTs can be accessed.

Figure 7.1: Frequency of students', prospective students', tutors and managers' access to ICTs



	Radio	Audio Cassette	Television (TV)	Video	Computer	Internet
Students	96.74	64.67	71.74	39.89	41.3	23.08
Prospective students	93.88	51.02	71.43	46.06	30.61	12.24
Tutors & managers	88.57	80	82.86	66.67	80	74.29

To establish whether there is a significant difference in access to technology particularly by students, tutors and managers, a Chi Square test was used. The level of significance was at $p \leq 0.05$. The result of the test indicates that there is no significant difference with regard to access to the audiocassette ($p = 0.0769$) and to the television ($p = 0.1718$) although a higher percentage of tutors and managers have access to both technologies. However, the result of the same test with regard to access to the video ($p=0.0043$),

computers (p=0.0001) and Internet (p=0.0001) showed a highly significant difference in access. In all the three technologies, only a small percentage of the students have access. Internet has the lowest percentage of students having access to it with only 23.08%.

It is therefore important to note that, according to the results of this study, nearly 60% of the students and prospective students do not have access to video, computer and to Internet so decisions on which technology to use and how access is to be provided must take this into consideration. Nevertheless, even with those students that indicate that they have access, only 3.39% have access to computers at home and 1.16% to Internet at home (see table 7.2 for details).

Table 7.1 gives the frequency and percentage of the respondents that DO NOT have access to ICTs while table 7.2 shows the ICTs and where each can be accessed.

Table 7.1: Frequency of students', prospective students' and tutors and managers' who DO NOT have access to ICTs

ICT	Students		Prospective students		Tutors & managers	
	F	%	F	%	F	%
Radio	6	3.26	3	6.12	4	11.43
Audio Cassette	65	35.33	24	48.98	7	20
Television (TV)	52	28.26	14	28.57	6	17.14
Video	110	60.11	26	53.06	11	33.33
Computer	108	58.7	34	69.39	7	20
Internet	140	76.92	43	87.76	9	25.71

A number of other places where the ICTs can be accessed were also identified and these include:

- Hotels/bars
- Schools
- Private Computer Centres/Business Centres
- Internet Cafes
- Post offices
- Work places and
- TDMS Coordination Centres

With the exception of the TDMS Coordinating Centres all these places belong to the private sector. So, although the numbers accessing the ICTs at these places is minimal,

it implies that the private sector is an important sector and a potential partner in the provision of access to ICTs. Makerere University therefore needs to explore this further.

Table 7.2: Percentage of students, prospective students and tutors and managers and their access to ICTs

ICT	CATEGORY	PLACE OF ACCESS TO ICTs				
		Home	Friend's Home	Relative's Home	Office	MUK
Radio	Students	97.28	25	24.46	19.57	8.20
	Prospective Students	93.88	28.57	32.65	10.20	8.51
	Tutors & Managers	91.67	8.33	8.33	27.78	22.22
Audio Cassette	Students	59.02	20.77	17.49	10.38	8.24
	Prospective Students	53.06	16.33	20.41	6.12	0
	Tutors & Managers	77.78	8.33	8.33	11.83	11.11
TV	Students	57.87	27.53	24.16	8.43	13.48
	Prospective Students	55.10	32.65	34.69	4.08	2.08
	Tutors & Managers	91.67	11.11	5.56	8.33	11.11
Computer	Students	3.39	5.65	7.91	26.55	27.12
	Prospective Students	10.20	16.33	2.04	20.41	6.38
	Tutors & Managers	19.44	0	2.86	62.86	31.43
Internet	Students	1.16	0	1.16	8.67	21.39
	Prospective Students	2.04	4.08	2.04	8.16	4.26
	Tutors & Managers	2.78	0	0	37.14	40

This study also shows that personal ownership to all the ICTs with, the exception of the radio, is clearly limited especially for the computer and Internet. This is consistent with what is expressed by the Republic of Uganda (July 2002:8,17), which indicates that by February 2001 Uganda had only 1,200 Internet/Email subscribers using wireless access and 4,500 using the dial-up access and with only one personal computer for every 1,000 people. See also table 7.3 that gives Uganda's access to various technologies.

Table 7.3:Uganda's access to telecommunications

Technology	1999	July 2000	February 2001
Fixed Telephone Lines	58,000	61,000	56,149*
Mobile Phone	70,000 (subscribers)	140,000 (subscribers)	210,000 (subscribers)
Internet/email (wireless)	N/A	500 (subscribers)	1,200(subscribers)
Television Stations	11	11	19

Source: Republic of Uganda (July 2002:8)

* By February 2001 the number of fixed telephone lines had reduced but it is not clear why this happened.

These figures confirm the findings of this study which indicate that Uganda has poor access to ICTs, no programme should therefore be developed based on the assumption

that students will have personal access to video, computers or to Internet. Alternative ways of ensuring access would instead need to be considered.

Policy makers were asked to consider this question and suggest ways in which the ICTs can be made more accessible (item 26 of the interview schedule – appendix VI). According to them, this could be achieved through:

- Collaboration with various institutions. In this way, 'duplication of efforts and wastage of scarce resources ' could be avoided. In collaborative ventures, institutions would pool resources and run common centres. This collaboration should also extend to the public and to corporate sector like the different TV and radio stations.
- Establishing well-equipped centres. Since personal ownership is difficult, centres should be established where the distance learners can access the technology. These centres could be university centres, district resource centres or even schools/colleges (Perraton and Creed 2001:13).
- Careful planning of programmes. This should include proper planning and budgeting for the provision of the technology. For example, could plan for use of 'CD-ROMs instead of Internet'.
- Government subsidies and support. Government support in form of subsidised cost of equipment and technology and waiver of taxes on this equipment.
- Personal ownership. Encourage students to own radios and audiocassettes.
- Funding acquisition. 'Providers must be willing to invest in ICTs'.

Table 7.4 provides the results of the policy makers' views in how ICTS could be made more accessible to users.

Table 7.4: Policy makers views on how ICTs can be made more accessible

How to make ICTs more accessible	F	**%**
Collaboration	23	34.85
Well equipped centres/schools	30	45.45
Planning of programmes	3	4.55
Funding of acquisition of ICTs	2	3.03
Personal ownership	2	3.03
Involving the private sector	1	1.52
Government subsidies and support	5	7.58

Access to all ICTs is still a huge problem in Uganda as shown in this study and as shown in table 7.3. The majority of students do not have access to video, computer and Internet whereas a higher proportion has access to the radio and to audiocassette. Clearly if Makerere University is to fully integrate ICTs in its B.Ed (External), a model

based on personal ownership of video, computer and Internet will not be appropriate. A model that exploits provision through centres and sharing of facilities is likely to promote higher access to the technology for particularly the students (Bates 1994:1577, De Wolf 1994:1561,Perraton and Creed 2001:13).

7.3 USE OF ICTs IN DISTANCE EDUCATION PROGRAMMES

7.3.1 Introduction

ICTs have a huge potential of enriching distance education because it can:

- According to Moore (1996:24), Peters (1996:51), and Bates (2000:16), enable the teacher and learner to bridge the distance between them.
- According to Tschang and Senta (2001:6), be used to get the '*…right types of content and learning to the individuals…'* and to this purpose it has been used for the production of study materials for distance learners.
- Be used to improve learning (Bates 2000:16, Tschang and Senta 2001:6)
- Enhance management and administration of distance education (Paul1990: 124).

The government of Uganda also recognises the importance of ICTs in *'…national development, especially human development and good governance…'* (Republic of Uganda July 2002:21) and has therefore as its goal:

> To promote the development and effective utilisation of ICT such that quantifiable impact is achieved throughout the country within the next 10 years (Republic of Uganda July 2002:21)

Policy makers in this study were asked to give their views regarding the use of ICTs in teacher education programmes provided by distance education in the country. This question was specifically addressed to this category because as a vital group in policy making, any innovation in the education system needs their support and involvement if it is to succeed. From their responses, the major issues identified were:

- The question of access to technology. To them, access to ICTs in the country is still a major challenge although the technology is already available in the country. So according to one official, 'government must play a role by deliberate effort at making the equipment accessible for example through subsidies'. It is for this reason that 13.91% of them recommended that access to ICTs is a prerequisite to any use in teaching and learning (see table 7.5). This access must be for all the users – teachers and learners.
- 56.25% of the officials who answered this question viewed ICTs as having a huge role to play in the training and education of teachers. One of the officials pointed out

that ' work demands are changing and computer skills are core'. Another added that ' the world around us is changing and we must change too to cope with all these changes.

- Also, according to the policy makers, there must be care in choosing the technology for use. So it is important to 'utilise technology that is affordable and available to learners'. The need to diversify technology was emphasised because 'depending on print media alone is no longer sufficient'.
- However the reality is that introduction of ICTs is likely not to be affordable to many. It is likely to be costly but that nevertheless, '…policy should promote use of technology.'

So, whereas the policy makers are keen to have ICTs integrated in teacher education programmes, there is also recognition that the cost of the technologies, and therefore access, to these is still a huge challenge. It is therefore vital for the government and teacher educators to carefully and deliberately plan for this integration taking into careful consideration the basic prerequisites necessary for this to work.

7.3.2 Prerequisites for effective and efficient integration of ICTs

The policy makers were also asked to identify the basic prerequisites that must be put in place for the integration of ICTs to be successful. The prerequisites identified are presented in table 7.5 and each of them will be briefly discussed in the next sub-sections.

Table 7.5: Prerequisites for effective and efficient integration of ICTs

Prerequisite	RESPONSES	
	F	%
Training and sensitisation of staff and students	38	33.04
Access to the ICTs by all users	16	13.91
Adequate funding for acquisition and maintenance	13	11.30
Electrification or access to alternative power	13	11.30
Policies and guidelines at national and institutional levels	6	7.83
Collaboration and networking with other institutions and departments	6	7.83
All the required equipment	20	17.39

a) Training and sensitisation of staff and students

Access to technology should be accompanied by knowledge and skills for its use. To achieve this, 33% of the policy makers recommended training and sensitisation of all the users. According to them, it is vital to have 'qualified staff to run and manage the technology' and tutors should be able to '…effectively use the equipment'. Equipping

centres is therefore not sufficient, all users must be sensitised and trained. According to one officer, it is vital to 'transform the teacher trainers by training them in the use of technology. For, unless the teachers themselves are exposed and have knowledge it is a waste of time to distribute computers to schools'.

Bates (2000:77) identifies human support for technology infrastructure as critically important. According to him, this human support includes the *'…technology support people… media and production and services people…instructional design staff… subject experts…'* All these different people need to be identified and trained to fulfil their different roles.

b) Access to ICTs by all users

The importance of access to ICTs has already been discussed in section 7.2 and in this study, 13.91% of the policy makers who answered this question identified access as one of the core prerequisites that must be put in place before the technology is chosen and used. According to them, for the technology to be effectively used, all users – students, writers, tutors and managers and support staff – should have access to the technology chosen for use in the distance education programmes. This also implies that all the necessary equipment for the technology to work should be made available. Access to technology in Uganda is still a challenge because, for example by 2001 Uganda had only 2 telephone mainlines per every 1,000 people while only 2.5 out of every 1,000 people were internet users (UNDP 2003:276). Also according to the Republic of Uganda (July 2002:17), it is estimated that only 1 in every 1, 000 people have a personal computer and that even in organisations, there are *'…very few LANs …and there are hardly any WANs'.* Deliberate plans should therefore be in place for the acquisition of this equipment and efforts to ensure all users have access. According to the policy makers, in this study, this can be achieved through:

- Provision of 'technologies in schools as well so that the teachers can continue to use these technologies'. Perraton and Creed (2001:55) suggest that this can be achieved through governments or international agencies' support.
- Establishing 'satellite centres where these services can be provided'. LEARN Foundation in Bangladesh for instance used this strategy by supplying some computers to village schools (Perraton and Creed 2001:55). The African Virtual University could also be said to be using this strategy since it has satellite centres in different universities in Africa.

- 'Departmental website with all the necessary data'. A quick survey of the Internet will reveal many universities with websites where basic information can be found on courses, admission requirements and procedures and key contacts.

A number of authors have identified access to technology as an important factor (Bates 1994:1577,Meyer-Peyton 2000:85, Perraton, Creed and Robinson 2002:45). Planners should hence be concerned about access to the technology for all the users. It would be futile for instance to choose to use any technology if the students do not have access to it.

c) Adequate funding for acquisition and maintenance

Investment in technology in any distance education programme is one of the high costs (Bates 2000:19, Berge 2001b:19, Orivel 1994:1572). It is therefore imperative that funds for this be made available. 11.3% of the policy makers in this study were also of the opinion that funding for acquisition and maintenance of equipment is a prerequisite for the integration of technology in teacher education programmes. Also, that it must be remembered that there might be 'need for massive investment to start with'.

d) Electrification and alternative sources of electricity

Perraton et al. (2002:45) for instance identify access to electricity or alternative sources of electricity as one of the prerequisites for the use of ICTs. However in Uganda, access to electricity in Uganda is still very poor - with 89.7% of its energy use from traditional sources of fuel like firewood. This compares poorly to high-income countries that have only 3.3% of energy use from traditional sources (UNDP 2003:214-215). Since most of the ICTs require electricity to operate, availability of either electricity or alternative sources of power is a prerequisite. This is much more urgent in the rural areas where access to electricity is even more limited. Providers of distance education programmes in Uganda therefore need to plan for access to electricity or to alternative sources of electricity.

e) Policies and guidelines

According to Haddad and Zurich (2002:49) *'in planning a technology-mediated project for education, attention must be paid to the laws and regulations that will affect the project…'* 7.83% of the policy makers in this study agree with this for according to them, for teacher education programmes to successfully integrate ICTs, there must be policies and regulations that will facilitate this. In the words of one official, there is need for a 'clear vision, policy and plan for integration of ICTs'. One of them recommended that a

National Communications System be established to ensure coordination of facilities and service.

The Republic of Uganda (July 2002) has already developed a National Information and Communication Technology Policy while Makerere University has also developed an Information and Communication Technology: Policy and Master Plan. Makerere University's vision in this regard is

> '…university wide access to, and utilisation of information and communication technology to enhance the position of Makerere University as a centre of academic excellence, and its contribution to sustainable development of society' (Makerere University February 2001).

The Department of Distance Education therefore needs to utilise this framework to develop guidelines that will support successful integration of ICTs.

f) Collaboration and networking with other institutions and departments

The policy makers in this study were also of the opinion that Makerere University can ensure access to technology for its B.Ed (External) students through collaborating and networking with other institutions and departments. While discussing access in b) above, the policy makers for instance identified schools and places where teachers could access ICTs. This is one example of institutions that Makerere University could collaborate with.

7.3.3 Conclusion

So according to the policy makers in this study, for ICTs to be successfully integrated into teacher education, it is vital to ensure that:

- There is access to the ICTs by all users and availability of all required equipment
- There is adequate funding for acquisition and maintenance
- Training and sensitisation of staff and students is carried out
- Electrification or access to alternative power especially in the rural areas
- Policies and guidelines are in place at both national and institutional levels

This is in agreement with what (Haddad and Zurich 2002:43) consider as prerequisites for according to them there must be '*…access, acceptance, and availability'* which, put together encompass all that has been raised here by the policy makers.

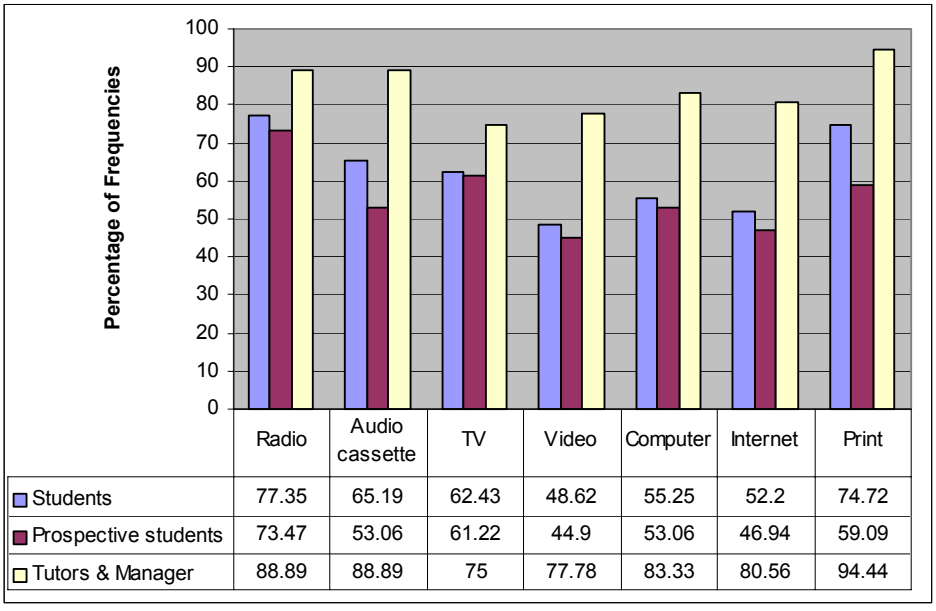
7.4 ICTS FOR B.ED (EXTERNAL) PROGRAMME

In chapter three section 3.6.5 the B.Ed (External) degree programme is described and according to that description, this programme has not integrated ICTs into its activities. This study therefore sought to establish the opinion of the respondents with regard to ICTs in the programme. See items 25 and26 of the students' questionnaire, 27 and 28 of the prospective students' questionnaire, and items 27 and 28 of the tutors and managers' questionnaire (appendices II – V).

7.4.1 ICTs that can be used for B.Ed (External)

Taking into account the environment in Uganda in which the B.Ed (External) is being run, all the respondents were asked, using a YES/NO question to indicate which technologies could be used for B.Ed (External) activities. The respondents were given a choice of seven different technologies i.e. radio, television, video, computer, Internet and print. These different technologies are currently available in the country and it is for this reason they were chosen. Figure 7.2 gives the results of the responses to this question. According to these results, all technologies can actually be used in the country and the reasons are given in table 7.6. Nevertheless, it is worth noting that print had the highest number of responses by tutors (94.44%), whilst for students and prospective students this was radio (77.35% and 73.47% respectively).

Figure 7.2: Frequency of students', prospective students', tutors' and managers' views on ICTs to be used for B.Ed (External)



	Radio	Audio cassette	TV	Video	Computer	Internet	Print
Students	77.35	65.19	62.43	48.62	55.25	52.2	74.72
Prospective students	73.47	53.06	61.22	44.9	53.06	46.94	59.09
Tutors & Manager	88.89	88.89	75	77.78	83.33	80.56	94.44

7.4.2 Reasons for choosing the ICT for use in the B.Ed (External)

Although technology is important and has potential to enrich teaching and learning, it should not be chosen for the sake of it and neither should it be chosen simply because it is available (Juma 2001:294). Technology should be treated as a medium, *'…a servant not a master…'* (Tooth 2000:2). This study was therefore concerned with establishing how distance education programmes in Uganda can benefit from ICTs. All the respondents in this study were asked (using open questions) to give reasons for choosing a particular technology for use in the B.Ed (External) activities. See item 28 of the tutors and managers' and prospective students' questionnaires, and item 26 of the students' questionnaire (appendices II – V) From the responses received, the following reasons were given:

- Accessibility of the technology
- For purposes of acquiring information and for communication
- The technology's potential to enrich and reinforce learning
- For the transmission of special knowledge and skills
- Versatility of the technology

There is a close relationship between what the policy makers put forward as prerequisites and what is raised here as reasons for choosing a technology. Table 7.6 shows the reasons given and the percentage of responses received for each technology from the different categories of respondents.

Each of the reasons given will be briefly discussed in the next sub sections.

a) Accessibility of the technology

This refers to how easily students, tutors and managers in a distance education programme can have and use the technology. For example, the radio was selected for use because according to one tutor, 'virtually all the students have access to radio'. The other issues of accessibility raised in this study include:

- The technology's potential use for mass education. The radio and TV were for instance said to be suitable for this. Holmes et al. (1993:141), Perraton and Creed (2001:14) all say that radio and TV have been used for broadcast programmes in a number of distance education programmes.
- Access to the technology by those who live in the rural areas. Most rural areas do not have access to electricity but the radio and audiocassette can still be used in these areas unlike the TV that may not be easily accessible in the rural areas. This confirms what Thomas (2001:2) says, for according to him, *'…most people, even in the poorest rural areas, have access to radio…'*

- Flexibility in use. The audio and the video can be used at the learner's convenience without being limited by hours of transmission, as is the case with radio and TV programmes.
- Simplicity of the technology. Radio, audiocassette and print were said to be simple technologies that can be easily utilised unlike Internet that may require more complex knowledge and skills before a learner can utilise it.

So, according to the respondents in this study, the choice of a technology to be used should be dependant among other things on how accessible the technology is to all its users.

Table 7.6: Frequency of respondents' views on reasons for use of ICTs in the B.Ed (External)

Reason for Using ICT	ICT	Students % of responses	Prospective students % of responses	Tutors & Manager % of responses
Accessibility	Radio	7.69	7.14	55.56
	Audio	4.73	5.56	42.86
	TV	3.57	3.51	32.35
	Video	5.04	3.23	28.57
	Computer	0.86	0	-
	Internet	0	3.57	11.90
	Print	5.97	-	57.45
Acquisition of Information & Communication	Radio	49.11	35.71	13.33
	Audio	4.05	5.56	4.76
	TV	16.43	15.79	0
	Video	1.68	12.90	7.14
	Computer	0.86	0	-
	Internet	48.18	50	59.52
	Print	14.18	-	10.64
Enrichment and reinforcement of learning	Radio	22.49	14.29	13.33
	Audio	62.16	41.67	26.19
	TV	39.29	28.07	29.41
	Video	42.02	38.71	17.86
	Computer	18.97	9.09	-
	Internet	23.64	3.57	7.14
	Print	56.72	-	8.51
For special knowledge & skills	Radio	14.79	11.43	2.22
	Audio	20.95	5.58	4.76
	TV	27.86	15.79	11.76
	Video	36.13	12.90	25
	Computer	24.14	12.12	24.14
	Internet	7.27	0	2.38
	Print	5.22	-	2.13
Versatility	Radio	1.18	5.71	2.22
	Audio	2.70	13.89	14.29
	TV	3.57	5.26	20.59
	Video	9.24	6.45	21.43
	Computer	31.03	36.36	-
	Internet	10.34	25	16.67
	Print	9.70	-	6.38

b) Acquisition of Information and for Communication

In chapter six, information dissemination and communication were identified as an important element in any distance education programme. I believe it is for this reason that choice of the technology was said to be dependant on its potential for information dissemination and communication. With this regard, a high percentage of students, prospective students as well as tutors and managers were of the opinion that radio and the Internet could be used particularly for this purpose.

c) Enrich and reinforce learning

Technology chosen should be the kind that will support the course content and enable effective learning to take place. So the technology should not be used simply because it is available but because of the potential it has to enhance teaching/learning (Bates 2000:16, Juma, 2001:294, Meyer-Peyton 2000:84). According to Mcloughlin and Oliver (1999:37) different technologies can support and promote acquisition of different skills; and therefore choice should be dependant on the expected learner outcomes (see also figure 2.1).

In this study, a number of respondents likewise found this important and consider that it should be a reason indeed for choosing any ICT. According to the students, the audiocassette, TV, video and print should be used because these can enrich and reinforce learning. In the words of some tutors and managers, the radio would 'make learning more interesting and real', while with the TV, 'audio-visual impressions liven up study and make students feel they are in touch with the presenter'.

d) Acquisition of special knowledge and skills

According to Mcloughlin and Oliver (1999:37), different technologies can help promote different approaches to teaching and learning and can help achieve different learning outcomes. See also figure 2.1 for the relationship between technologies, teaching/learning approaches, and learning outcomes. In this study, whereas all the ICTs were chosen because they can be used to achieve special knowledge and skills, according to the students, the tutors and managers, the radio would be useful in the teaching of languages and communication skills, the video/TV for demonstrations and practical skills, and the computer for data processing, writing skills and information search.

e) Versatility

This refers to the ICTs flexibility or adaptability for use. For example, the computer and Internet were said to have a huge potential for multiple or varied use including 'keeping records', 'printing study materials', 'accessing international information' and 'analysis of information and data'. This confirms what Tschang (2001:20) says of Internet which, according to him, can be used to store and access vast quantities of knowledge.

The results of this study indicate that any ICTs can be used for teaching/learning but the choice of which ICT to use, should be dependant on how accessible and versatile the technology is and on what learning outcomes are expected from the teaching/learning experience. The technology should not be used simply because it is available.

7.4.3 Strategies for financing the integration of ICTs in the B.Ed

The cost of ICTs is one of the factors that affect choice of the ICTs and so it's financing must be carefully planned right from the initial planning for the course (Bates 2000:19, Berge 2001b:19, Meyer-Peyton 2000:85, Orivel 1994:1572). As already discussed in section 7.3.2c, according to the policy makers who participated in this study, funding is one of the prerequisites for the integration of ICTs in teacher education programmes run using distance education.

The B.Ed (External) relies almost entirely on student fees for the funding of all running costs of the programme and in it's budgeting, the Department allocates only 7% of its total funds to equipment like computers, printers, photocopiers, and their accessories. From income derived from the B.Ed (External) programme alone, this amounts to about US$35,000. If therefore this were spent on computers alone, at the cost price of US$1,000, only 35 computers would be purchased! However, according to the University ICT policy, '

> it is the University Policy to ensure and require that all students, academic staff, administrative and support staff, and managerial staff are trained on a continuing basis to equip them with the requisite skills to fully exploit the ICT environment in their different functions' (Makerere University February 2001:18).

If this policy therefore is to be implemented, the Department needs a big Local and Wide Area Network of computers so as to effectively and efficiently reach its nearly 2,500 B.Ed (External) students many of who are scattered across the country. A challenge that the Department is unlikely to meet from the meagre income it earns from fees.

This clearly is a challenge and so, the respondents were asked to suggest ways in which this integration could be funded. From the list of options given, the highest number of respondents were of the view that this funding should come through government subsidies to the programme, from the donor community and from tuition fees already levied by Makerere University. The least number were of the view that additional charges could be introduced. See table 7.7 for details.

Table 7.7: Frequency of respondents' views on sources of funding for ICTs in the B.Ed (External)

Source of Funding	Students		Prospective students		Tutors & managers		Policy makers	
	F	%	F	%	F	%	F	%
Government subsidies	143	83.14	46	93.88	30	85.71	22	66.67
Donor community	141	81.50	36	73.47	30	85.71	19	57.58
Tuition fees	98	56.32	25	51.02	24	66.67	21	63.64
Local community support	67	38.95	17	34.69	17	48.57	10	30.30
Additional charges	21	12.21	8	16.33	16	45.71	18	54.55

In addition, a number of other strategies were identified and these are:

- Fundraising
- Performing Arts & exhibitions
- University savings
- Money generating projects
- Individual acquisition
- Schools
- Private sector
- Cooperative groups
- Loan schemes

These results reveal that funding of ICTs remains a challenge that Makerere University must carefully plan to deal with. Funding ICTs requires a lot of concerted effort by all stakeholders and a lot of creativity and innovation by Makerere University.

7.5 GENERAL COMMENTS

All respondents were asked to make any general comments with regard to the use of ICTs in the provision of teacher education programmes run in Uganda using distance education. These comments reinforce some of the issues that were specifically raised in the rest of the questions on ICTs. However, in particular, the general comments reiterate the points that:

- *ICTs have a huge potential in the country and this potential should be exploited.* In particular, the ICTs have a potential to make teacher education much more

interactive, and enriching so 'for distance education to succeed, other media must be used'.

- *Funding and facilities for ICTs are needed.* Integration of ICTs cannot take place without adequate funding and without the necessary equipment and facilities. There must therefore be a 'willingness to invest in this area'.
- *Access to ICTs for both students and staff is vital for integration to be meaningful.*
- *There are a number of challenges* but these are not insurmountable and so Makerere needs to 'carefully plan' for the integration.

7.6 SUMMARY

Integration of ICTs is absolutely imperative in distance education. This chapter has shown that the ICTs have a huge potential in meeting a number of teaching/learning functions in the B.Ed (External) however, in Uganda, access to the ICTs, which is one of the prerequisites for the integration, is still a huge problem to students and staff of this programme. Personal ownership of the video, TV, computer and Internet is limited so programmes that presuppose personal ownership to ICTs cannot work effectively and efficiently. Alternative ways of ensuring access would have to be utilised and in this study, collaborative ventures, use of centres and government subsidies are some of the strategies that have been suggested. The same applies to financing of the integration; alternative sources of funding have to be solicited since existing tuition fee funding is inadequate. This should all be done bearing in mind the fact that technology should not be chosen and used simply because it is available but because of what it can add to the teaching/learning experience. It should be based on the tasks it will be expected to perform and the outcomes expected from the programme.

CHAPTER EIGHT

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

This study set out to critically examine the existing distance education model, for the provision of In-Service Teacher Education (INSET) for secondary school teachers in Uganda, identify its strengths and weaknesses and to suggest a framework for improvement. This chapter therefore provides the summary, implications and conclusions of the study and sets out to present recommendations for the improvement of In-Service Distance Education for the Education of Secondary School Teachers in Uganda and it also presents suggestions for further research.

The introduction to the study is given in chapter one. This chapter also includes the reasons for the study, states the research problem, research objectives, and questions. The main objective of the study was to 'critically examine the existing model for the provision of distance education In-Service Teacher Education (INSET) for secondary school teachers in Uganda against existing contemporary distance education theories and practice, identify the model's strengths and weaknesses thereby establishing its efficacy to provide quality teacher education and suggest a framework for improvement'. In order to achieve this, the study was guided by the following research questions:

1. What are the various theories of distance education and the different typologies of distance education institutions?
2. What are the different definitions and forms of teacher education?
3. To what extent can distance education be a viable option for the provision of high quality teacher education that effectively meets education needs in Uganda?
4. What are the practical demands in teacher education by distance and are the current teacher education programmes meeting these demands?
5. What factors are impacting teacher education by distance in Uganda?
6. What are the strengths and weaknesses of teacher education programmes that have been offered through distance education in Uganda and how can these programmes be improved?
7. What are the strengths and weaknesses of the Bachelor of Education (External) and how far is it helping teachers acquire the required competencies?

8. To what extent can Information Communications Technology be integrated in the provision of Teacher Education by Distance In Uganda?
9. How should a distance teacher education model be designed to meet the needs and demands in Uganda?

Uganda has run some teacher education programmes using distance education and through these programmes, a number of teachers have been trained. Makerere University in particular is running the biggest programme in the country and is through this programme, the Bachelor of Education (B.Ed External), providing in-service teacher education for secondary school teachers. However, this programme seems to be facing a number of challenges and as a result there are suspicions that the graduates of the programme are not 'as good as' teachers trained in the internal programmes. It was therefore vital to identify what some of these challenges are and suggest ways of making the programme much more efficient.

In chapter two the study traced the historical development of distance education, explored some of the theories underpinning it and related these to distance education in Uganda. From these theories, key characteristics of distance education were identified and these are:

- The teacher and the learner are separated (Amundsen 1996:61-79, Holmberg 1995b:2, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8). This separation is both a challenge and an opportunity. It is a challenge, because the distance education institutions have to plan for effective and efficient ways of bridging this gap. It is however an opportunity because it opens avenues for creativity so as to bridge this gap. Also the different dimensions of this separation should all be taken into consideration
- Technology is important for bridging the distance between the teacher and the learner but the choice of the technology to be used needs care since there are a number of factors that are likely to affect this choice (Moore 1996:25, Verduin and Clark 1991:124).
- Distance education promotes learner autonomy since learners will often be required, for most of the time, to study on their own (Moore 1996:29, Peters 1994:227, 1996:46, Verduin and Clark 1991:4-5).
- Distance education demands careful planning and organisation since there are many activities to be run involving a wide cross section of people and since the students will often be scattered across large areas (Keegan 1996:120, Peters 1994:118).

- To effectively and efficiently provide all the services, distance education needs key sub systems which should each be well established and organised but which must all work in unity and harmony.

The chapter also discussed some of the various distance education programmes that have been provided in Uganda since 1990 and the major features of these programmes discussed.

In chapter three and as part of theoretical analysis, the study explored In-Service Teacher Education provided in Uganda through Distance Education since 1990. The different programmes discussed in this chapter indicate that Uganda has attempted to use distance education for the training of schoolteachers and this has in many ways helped Uganda increase the number of trained teachers particularly for the primary section and to upgrade a number of secondary school teachers. However, there have been a number of challenges and in the face of increasing school enrolments there is continued need for more and for better teachers.

Chapter four presented the methodology that was used to carry out the study. To gather all the data presented in this study, three basic instruments were used; literature survey, questionnaires and a structured interview schedule. The sample in the study included current students of B.Ed and B.Sc (External) programmes, prospective students of the B.Ed (External), tutors and managers of the programme and teacher education policy makers. The chapter also attempted to cover content validation of the research instruments.

The data from the fieldwork is then presented in chapters five, six and seven. Chapter five discussed viability of distance education and factors that impact it in Uganda. The other concerns in this chapter were the challenge of providing for practical demands of teacher education and the need for a well-articulated policy on distance education.

Whereas chapter six explores the strengths and weaknesses of teacher education programmes that have been run in the country using distance education, chapter seven focuses on the integration of Information Communication Technologies (ICTs) in these programmes. Issues of access, use and cost of the ICTs are all discussed here. The discussions on the weaknesses and strengths of the teacher education programmes that have been run in Uganda using distance education and the discussion of the Bachelor of

Education (External) do reveal that there have been a lot of achievements but the study has also revealed that there are a number of areas of weakness that need attention.

Using the information gathered from the literature survey, and the results of the empirical data, a framework for the improvement of In-Service Distance Education for the Education of Secondary School Teachers in Uganda is then presented in chapter eight. Since no research is always totally exhaustive but rather raises further questions, suggestions for further research are then given at the close of the report. See also figure 1.2 for the organisation and structure of the report.

In the next sections, the conclusions drawn from this study are discussed.

8.2 SUMMARY OF RESEARCH FINDINGS AND CONCLUSIONS

8.2.1 Viability of Distance Education to Meet Educational Needs in Uganda

This study sought to establish how many of the students, prospective students, tutors and managers of B.Ed (External) and policy makers actually do believe in the viability of distance education to meet educational needs in Uganda. According to the results obtained in the study, whereas there is general belief in the viability of distance education to meet various educational needs in the country, there is hesitation regarding its efficacy to cater for education in the science related fields.

The results indicate that policy makers in education believe that distance education has a lot of potential in the country because of its potential to increase access, provide flexible teaching/learning and the possibility that distance education could be cheaper than internal programmes. This faith in the potential of distance education is in agreement with views already expressed by various writers on distance education (Bates 2000:128, De Wolf 1994:1558, Holmberg 2001:17, Orivel 1994:1567, Perraton 2000:126-127). Perraton, Robinson and Creed (2001:28) in the case studies they present conclude that distance education has been used and continues to be used for teacher education in the areas of *'…initial professional education, continuing professional development, curriculum reform and change, and teachers' career development'.*

However, the respondents in the study expressed reservations with using distance education to offer science-based programmes. This is largely because of the demands in

these subjects for practical work, hands-on experience, specialist study materials and equipment, close interaction and supervision by tutors, which distance education, according to them may not be able to meet. The other reason for hesitation is the likely high cost of providing these courses. A number of authors have in the past said that distance education has been accused of being effective in distributing information and delivering facts but as ineffective in promoting deeper learning and the acquisition of critical thinking skills (Bates 1994:1577, Garrison 1996:12, Henri and Kaye 1993:27-28, Holmberg 1993:331, Paul 1990:85, Perraton 2000:12). This failure could according to these results be extended to failure in the acquisition of practical skills - a common need in science subjects. However, the policy makers' fear may partly emanate from lack of information on cases in Sub Saharan Africa in general and in Uganda in particular where distance education has been successfully used for science courses.

8.2.2 Factors that Impact distance Education in Uganda

As another way of establishing what the respondents in this study think about the viability of distance education in Uganda, they were asked to suggest factors that are impacting distance education in Uganda. According to them, there are a number of factors. The factors identified are in agreement with what other writers have identified before as important in distance education. These factors include among others:

- The need for expertise in distance education (Bottomley and Calvert 2003:3).
- Government and institutional policies on distance education (Bates 2000:18, 2001:142).
- The level of funding available for distance education programmes (Perraton, Robinson and Creed 2001:8).
- How far institutions and students have access to Information Communication Technologies (Bates 1994:1577, De Wolf 1994:1561, Meyer-Peyton 2000:85, Moore 1996:25, Verduin and Clark 1991:124).
- How distance education programmes are managed and administered (Aguti 1996:84, 88; Keegan 1996:120).
- Attitudes of various stakeholders towards distance education (Paul 1990:59, Perraton 2000:82,199).

The study did not seek to establish which of these factors has the greatest impact on distance education so determining this would perhaps require further study. However, planners can bear these in mind while planning and implementing programmes.

8.2.3 Strengths and weaknesses of TE programmes

Chapter two documented teacher education programmes run by distance education in Uganda since 1990. The research results showed that many of the respondents in the study have participated in these programmes (see figure 6.1). From this experience a number of strengths and weaknesses were raised. Some of these weaknesses were in the areas of:

- The content of the programmes
- The management and administration of these programmes
- Study materials development and provision in these programmes
- Students support services provided in the programmes
- Assessment and examinations in these programmes and
- The level of integration of ICTs in these programmes.

It is critical that all the major subsystems of any distance education programme are given sufficient attention because poor management, inadequate study materials and poor student support are likely to lead to a poor teaching/learning environment. Management is key for the planning, daily running of programmes, their monitoring and evaluation. Good management is therefore the hub for the provision of the rest of the services and hence highly critical (Peters 1994:118).

Study materials on the other hand are central in the actual teaching/learning acts. Study materials are the bridge between the institution and the learners and without study materials; regardless of the media that is used for the provision no effective distance education can take place. For, study materials take up the teaching functions of a teacher, and the students who, in distance education are expected to study for the most of their time on their own, cannot do without these study materials (Keegan 1996:130, Robinson 1996:7, Robertshaw 2000:2). Likewise, student support is set up with the ultimate purpose of enabling the students to effectively study. Support services are important for the provision of other support services like guidance and counselling, provision of library services and face-to-face sessions (Keegan 1996:130, Robertshaw 2000:2). Although students could survive without efficient support services, their study is likely to be with a lot of struggle and difficulties.

So a combination of poor management, inadequate study materials and poor student support will lead to a poor teaching/learning environment; which would in turn lead to low

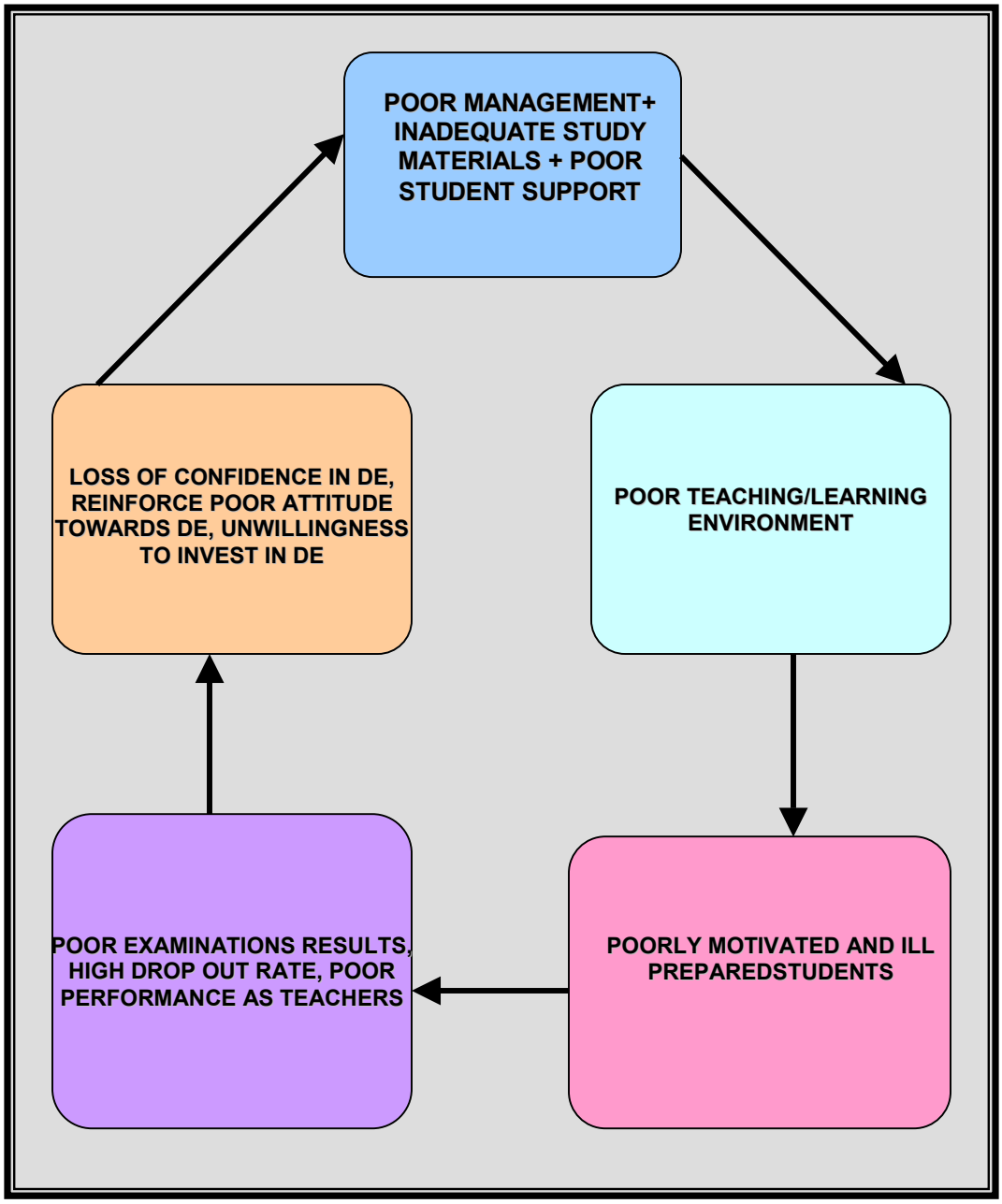
motivation for students. Teachers joining INSET programmes are often working adults with many other responsibilities. So although they may have high motivation for joining the programmes, this motivation needs to be sustained and where possible heightened and a good teaching/learning environment can achieve this. In addition to low motivation, these students are likely to be ill prepared for examinations and implementation of the knowledge and skills they are expected to have learnt from the programme which will inevitably lead to high dropout rates, poor examination results and poor performance as teachers.

Distance education has been accused of being a second rate option of providing education and there are perceptions that its graduates are not good enough (Paul 1990:59, Perraton 2000:82, 199). Also, one of the challenges that many distance education programmes face is high drop out rates (Holmberg 2001:73, Keegan and Rumble 1982:228, Paul 1990:79, Perraton 2000:12, Perraton et al. 2001:30, Tooth 2000:2). So, high drop out rates, poor examination passes and poor performance on graduation is likely to lead to loss of confidence in distance education, reinforce the poor attitudes towards distance education and cause policy makers to be unwilling to invest in distance education. For then distance education will be viewed as a losing option - an option with only dismal achievements.

Programmes that are either established or being run in circumstances where confidence in distance education is low, attitudes are poor and policy makers unwilling to invest in distance education, are likely to be poorly resourced and therefore poorly managed and with inadequate student support. So, in my opinion the vicious cycle of mediocre distance education will then continue. Figure 8.1 is an illustration of what I believe is this vicious cycle of mediocre distance education.

This seems to be the dilemma that the B.Ed (External) is currently in. The B.Ed (External) programme was set up among other things to provide upgrading opportunities and it should be seen to be achieving this. It has indeed done so as shown in the previous discussions however the programme is still plagued by a number of problems. The challenge therefore is to break out of this vicious cycle and begin to work towards a much more effective and efficient programme. To do so requires a closer examination of the strengths, weaknesses, opportunities and threats or challenges facing it and design plans that will cause it to improve.

Figure 8.1: Vicious Cycle of Mediocre Distance Education Programmes



The guidelines given in this chapter in the form of a framework are meant to be the beginning of that process. These are not prescription drugs meant to 'fish' the B.Ed (External) programme from its crisis but could become a working document for further reflection and discussions. However, in spite of the achievements that are not being underrated, there is need for urgent attention to the provision of INSET by distance education for secondary school teachers in Uganda.

8.2.4 Integration of ICTs in Distance Education Programmes

The history of the development and growth of distance education as documented in chapter two shows that distance education cannot do without ICTs. Its development has been intricately associated with the technology of the time (Amundsen 1996:67, Daniel 1997:50, Garrison 1989:52, Peters 1996:51, Verduin and Clark 1991:84). However, in Uganda the teacher education programmes that been run using distance education have had very little integration of ICTs. The study therefore sought to establish which technology the stakeholders have access to, what they believe can be used for B.Ed (External) and for what purpose and finally what prerequisites should be put in place for this technology to work.

According to the results of this study, there is some level of access to all the ICTs listed in the research instruments (radio, audio cassette, television, computer and Internet). However, the results indicate that personal ownership to all the ICTs with the exception of the radio is clearly limited and for the computer and Internet, extremely limited. The question of access to ICTs is an important one because it is one of the key factors that should be considered while determining and choosing the ICT to use because as Meyer-Peyton (2000:85) says, *'…if students experience frustration with the technology, they will drop out'*.

If distance education is to thrive in Uganda, access to ICTs must be given deep thought since the results of this study show that majority do not have personal access to video, computer and Internet whereas a higher proportion has access to the radio and to audiocassette. If therefore, Makerere University is to fully integrate ICTs in its B.Ed (External), a model based on personal ownership of video, computer and Internet will not be appropriate. A model that exploits provision through centres and sharing of facilities is likely to promote higher access to the technology for particularly students (Bates 1994:1577, De Wolf 1994:1561).

Integration of ICTs cannot be ignored because according to this study, it has potential to enrich teaching and learning. This particularly is in agreement with what is recognised by a number of authors (Bates 2000:16, Juma, 2001:294, Meyer-Peyton 2000:84, Tschang and Senta 2001:6). However for this to be achieved, according to the policy makers, the following prerequisites should be put in place:

- Access to the ICTs by all users
- Adequate funding for acquisition and maintenance
- Training and sensitisation of staff and students
- Electrification or access to alternative power
- Policies and guidelines at national and institutional levels
- Collaboration and networking with other institutions and departments

8.2.5 Conclusion

This study has restated the importance of distance education in Uganda because according to the results, there is a huge potential for it in the country. However while exploiting this potential there seems to be a problem with utilising distance education to run science courses because of the practical demands in these courses.

The teacher education programmes that have already been run in the country do illustrate the fact that this potential of distance education can be exploited for the education of teachers. Nevertheless, in spite of the various achievements made, these programmes still have many weaknesses which, if not addressed, will reinforce a cycle of mediocre distance education programmes. It is therefore crucial that teacher education providers running distance education seek to break out of this cycle. The next section now addresses this by providing a framework for high quality education for the education of secondary school teachers in Uganda. As stated earlier this framework should be viewed as guidelines that can form the basis of further discussions for the improvement of these programmes.

8.3 FRAMEWORK FOR HIGH QUALITY INSET DISTANCE EDUCATION FOR SECONDARY SCHOOL TEACHERS IN UGANDA

8.3.1 Introduction

Chapters five, six and seven explored, the potential of distance education in Uganda, the various strengths and weaknesses of the different teacher education programmes that have been run by distance education in Uganda and the integration of Information Communication Technologies (ICTs) in the programmes. From the results discussed in those chapters, it is evident that whereas distance education has a huge potential in the country and has indeed been used to offer INSET with tremendous achievements, the programmes have faced a number of challenges. The B.Ed (External) in particular has achieved much as an INSET programme especially for secondary school teachers in Uganda, however, a number of questions have been raised with regard to its efficiency and effectiveness. There are weaknesses in:

- Its management and service delivery
- Provision of study materials for its students
- The quality of the teaching /learning environment as a result of these two
- The pass and drop out rates in the programme, and the quality of teachers being trained and the
- The attitude towards B.Ed (External) and the willingness of both the University and the Ministry of Education to invest in this programme.

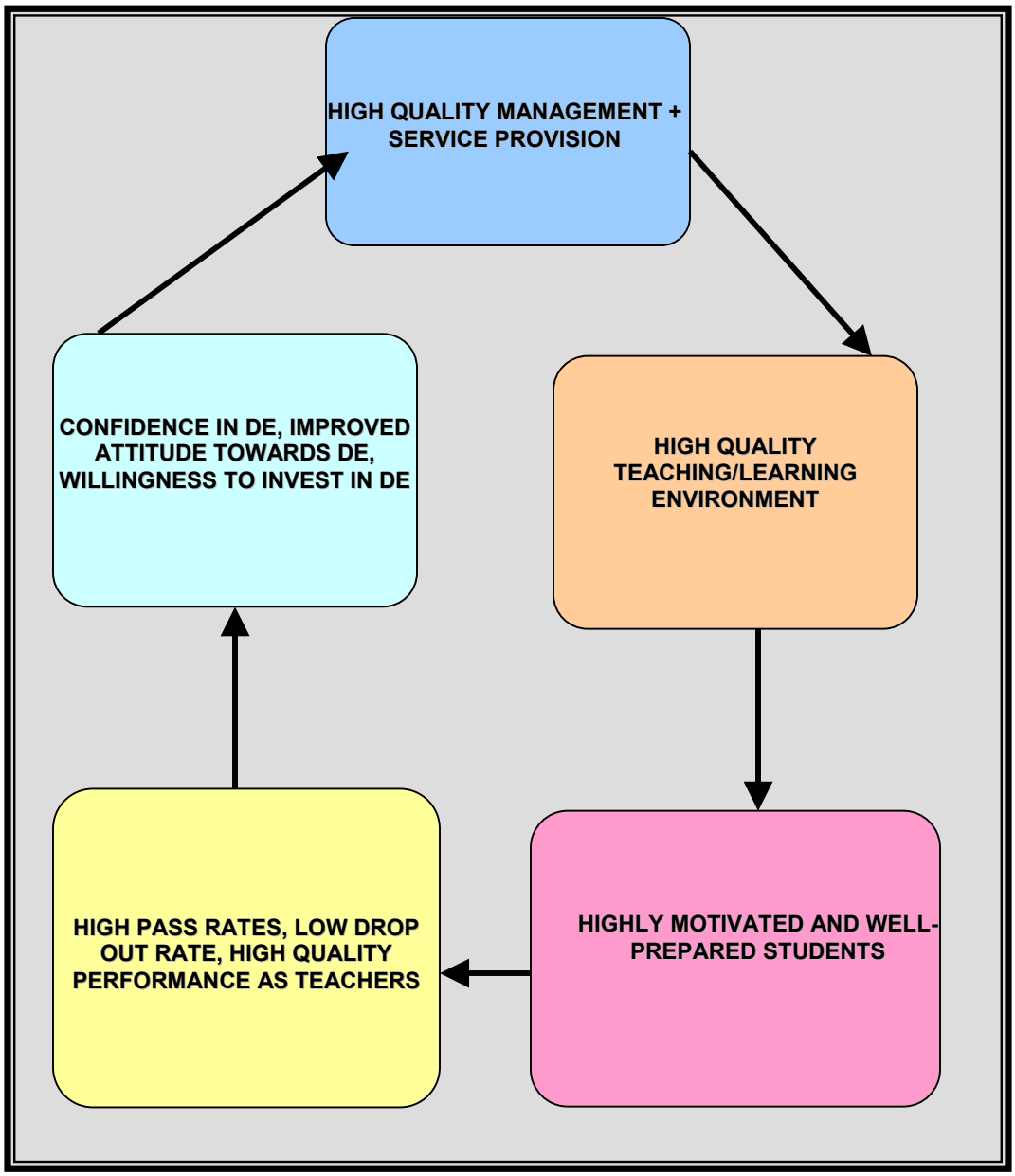
These weaknesses as shown in figure 8.1 can lead to a vicious cycle of mediocre distance education programme. To improve, the programme must strive to break out of this cycle and the next discussions provide guidelines, a framework for breaking this cycle so as to achieve high quality INSET distance education for the education for secondary school teachers in Uganda. A cycle of high quality distance education programmes can therefore be attained.

These guidelines are a result of my reflection on the theories of distance education discussed in chapter two; reflections on teacher education practices as presented in chapter three and the discussion of results presented in chapters five, six and seven. The framework is also guided by the guidelines offered as a 'Vision of South African Teacher Education in the Year 2020' (SAIDE 1996:111-136), and 'The Quality Standards Framework

for South African Distance Education Provision' (Directorate: Distance Education, Media and Technological Services 1996:53-71).

However, what is being presented here is not a blue print to be followed religiously but it is to be viewed as a framework that can form the beginnings of further discussions and plans for continuous improvement of B.Ed (External). Major elements of each of these components will be specified; however, these key elements should be seen as part and parcel of one whole and should therefore not be handled exclusive of each other.

Figure 8.2: Cycle of High Quality Distance Education Programmes



8.3.2 High Quality Management And Service Delivery

The Department of Distance Education is already running the B.Ed (External) using a collaborative arrangement involving different faculties, departments and individuals. This is a good foundation for the strengthening of the administration of the different activities of the programme. What is required here is a re-examination and re-conceptualisation of the collaboration. It is imperative that:

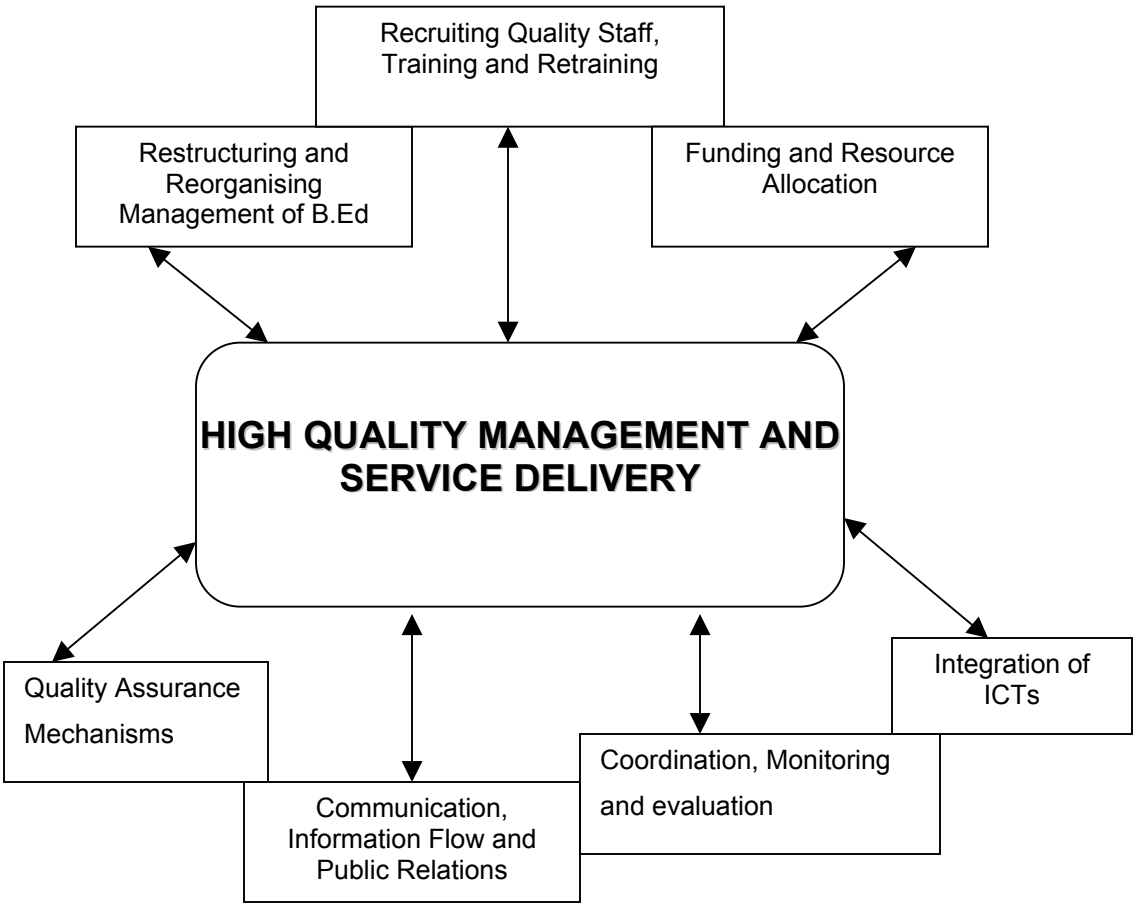
- Stock is taken of who the different collaborators are
- Clear specification of the roles and responsibilities of the different collaborators
- Determine the management strategies of this collaboration.

An efficient and effective management system and service delivery is paramount in any distance education programme. This can be achieved through:

- Continuous restructuring and reorganisation of the Department so as to cope with changing demands and needs (Bottomley and Calvert 2003:1, Peters 1994:109, SAIDE 1996:92).
- Recruitment of sufficient quality staff, continuous training and retraining to ensure that all staff can execute their duties with efficiency (Bottomley and Calvert 2003:3).
- Adequate funding and resource allocation for all the activities of the programme (Bates 2000:122, Perraton, Robinson and Creed 2001:8)
- Quality assurance mechanisms for all the programme activities (Tait 1997:2). These mechanisms should be carefully designed, implemented and reviewed
- Efficient information flow and dissemination to all the stakeholders (Moore 1996:22). Communication and information flow is a key element in the administration, management and student support of any distance education programme and therefore demands careful thought.
- Coordination and monitoring of all the different staff, and students, and of all the programme activities especially since in most distance education programmes students are scattered across wide areas (De Wolf 1994:1558, Perraton 2000:136).

This relationship is illustrated diagrammatically in figure 8.3. Key elements of each of these components of high quality management and service delivery will now be given.

Figure 8.3: Major Components of High Quality Management and Service Delivery in Distance Education



a) Restructuring and Reorganising Management of B.Ed (External) Programme

According to data collected in this study, the management of the Bachelor of Education (External) programme is not well organised and has been carried out 'by crisis'. There is therefore need for careful restructuring and reorganisation to ensure more efficient and effective management and administration.

1. Rational Departmental establishment that caters for all the needs of the programme.
2. Clear roles and responsibilities for all the collaborating partners accompanied by clear lines of accountability and reporting.
3. Clear strategic plans for all services and activities.
4. Decentralised management of the programme so that all the services are provided nearest the students.
5. Active participation of students in the decision-making processes of the programme.

b) Recruiting Quality Staff, Training and Retraining

1. Careful selection and recruitment of staff for the Department, support staff and all other part-time staff.
2. Recruitment of sufficient staff for all the sections in the Department.
3. Orientation of all staff on adult learning practices and basics on distance education and retraining for specific and specialised roles.
4. Division of labour and clear job descriptions
5. Clear staff development plans and strategies

c) Funding and Resource Allocation in the B.Ed (External)

1. Well identified funding sources and sustained resource mobilisation
2. Institutional commitment to investing in study materials development and acquisition of Information Communication Technologies.
3. Resourceful and rational resource allocation.
4. Well laid out but flexible budgeting procedures.
5. Clear lines of accountability and monitoring of all expenditures.

d) Quality Assurance Mechanisms in the B.Ed (External)

1. Clear policy statements on all elements of administration and management and on services taking into account the uniqueness of distance education.
2. Strategic plans for all services and clear implementation strategies
3. Monitoring procedures and continuous monitoring and evaluation of all activities.
4. Clear research agenda and integration of research findings into the programme.

e) Communication, Information Flow and Public Relations in the B.Ed (External)

1. Training of all staff on public relations particularly with adult learners.
2. Strategic and accurate publicity of the programme.
3. Well-articulated administrative structures and information which is easily available to all stakeholders.
4. Varied and appropriate media for communication and for dissemination of information.
5. Versatile and well-developed web page.

f) Coordination, Monitoring and Evaluation in the B.Ed (External)

1. Reporting and accountability schedules and procedures.
2. Deliberate involvement of students in coordination, monitoring and evaluation of the programme.
3. Continuous monitoring and evaluation and strategic utilisation of these results for continuous improvement of the programme.

g) Integration of ICTs

1. Choice of appropriate technology
2. Planning for management and upgrading of technology
3. Recruitment and training of technology staff and training of all academic and support staff in the use of identified technology for efficient and effective management of programmes and for delivery of services.
4. Integration of technology in all management and service delivery processes

8.3.3 High Quality Teaching/Learning Environment in the B.Ed (External) Programme

According to Moore (1996:22) in distance education, there is always a space separating the learner from the institution and from his/her teacher. Moore calls this space transactional distance and he says this distance affects both the teaching and learning and so efforts should be directed at crossing this distance so that effective teaching and learning can take place. Keegan shares the same view when he argues that since the learner is separated from his/her teacher, the teaching/learning acts should be reintegrated (Keegan1996:130). Crossing the transactional distance and reintegrating the teaching/learning acts could lead to high quality teaching and learning.

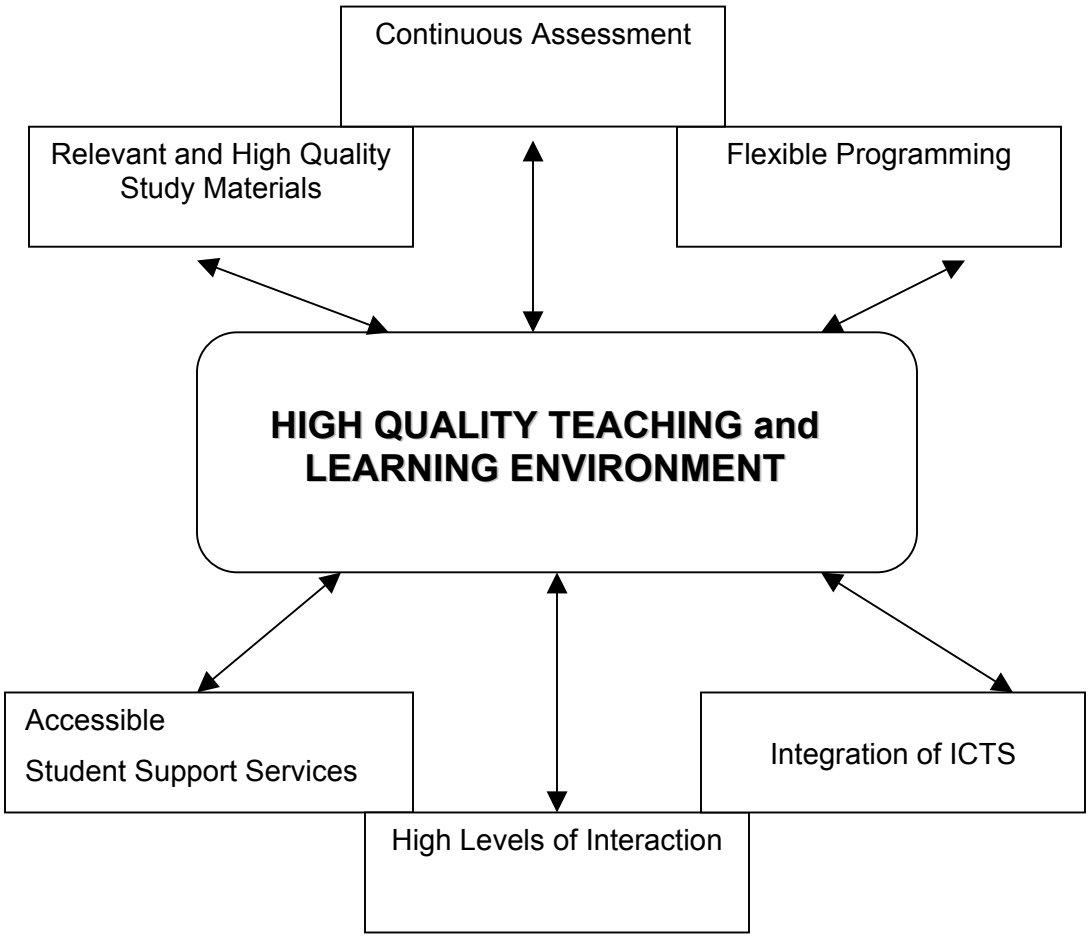
The B.Ed (External) should promote high quality teaching and learning. In other words, the teaching process should recognise the needs and potential of the learners exploit these, and encourage independent learning so as to achieve effective learning. This can be achieved by ensuring:

- Relevant and High Quality Courses and Study Materials (Holmberg 1986:108-111, 1995b:47, 2001:38-41, Keegan 1996:130, Robinson 1996:7, Rowntree 1986:19 –23, 58, SAIDE 1996:21).

- Flexible Programming (Epper 2001:3, Levine (1993:4) as quoted by Rumble (2000:1), Peters 1996: 45, Robinson 1996:6).
- Continuous Assessment (Manning 2001:61).
- Integration of ICTs (Bates 1994:1576–77, 2000:16, Daniel 1997:50, Moore 1996:24-32, Paul 1990:121-127, Peters, 1996:51, Tschang and Senta 2001:5-6, Verduin and Clark 1991:84).
- High Levels of Interaction, and accessible Student Support Services (Department of Distance Education 2000:2, Holmberg 1986:110, 2001:39, Keegan 1996:131, Robertshaw 2000:2, Robinson 1996:10, SAIDE 1996:115).

The core elements of each of these will now be given in the next sub sections.

Figure 8.4: Major Components of High Quality Teaching and Learning Environment in Distance Education



a) Relevant and High Quality Courses and Study Materials for the B.Ed (External) Programme

1. Needs assessment to identify the needs of the schools and teachers and the courses needed
2. Courses that are designed to meet national needs, the needs of the teachers and the needs of the schools
3. Well designed study materials that meet the needs of the courses, teachers and schools
4. Quality assurance in study materials development
5. Development of study materials according to plans and adequate finances to promptly produce the materials
6. Student access to all the study materials required in the different courses

b) Flexible Programming in the B.Ed (External) Programme

1. Programme activities that take into account the programmes of the schools and teachers
2. Involve stakeholders in developing plans for programme activities
3. Schedules that give students opportunity to take charge of their learning

c) Accessible Student Support Services in the B.Ed (External) Programme

1. Decentralised student support services
2. Student support that is in-built into the study materials
3. Adequate number of well trained tutors
4. Student support staff who are willing and available to support students.
5. Efficient library service that is able to meet the needs of the distance learners
6. Guidance and counselling systems based on the nature and character of the distance learner.
7. Well planned and meaningful face-to-face sessions

d) High Levels of Interaction in the B.Ed (External) Programme

1. Clear lines of communication between students and the institutions/tutors and amongst the students.
2. Regular communication to students and tutors.

3. Involvement of student leaders in communication between the students and the institutions/tutors and amongst the students.
4. Active and highly interactive face-to-face sessions and student group meetings.
5. Study materials that promote interactive teaching/learning

e) Integration of ICTs in the B.Ed (External) Programme

1. Planned and careful choice of ICTs. This should be done taking into account all factors.
2. Integration of ICTs into all teaching/learning activities.
3. Maximum utilisation of ICTs in records management and administration
4. Accessible and relevant records to staff and students

f) Continuous Assessment in the B.Ed (External) Programme

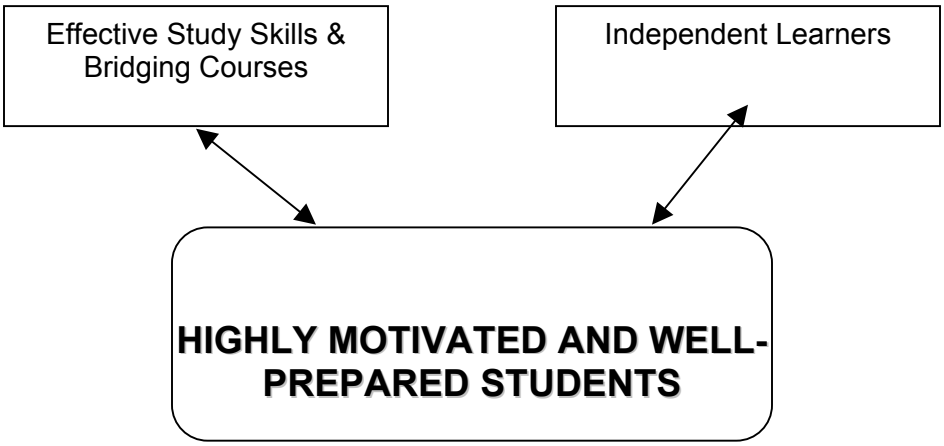
1. Relevant and stimulating assignments
2. Short assignment turn around time
3. Prompt and comprehensive feedback to students that serves guidance and counselling functions as well.
4. Quality assurance mechanisms to ensure high standards in the assignments, tests, projects and examinations.

8.3.4 Highly Motivated and Well-Prepared Students

Distance education students are often already highly motivated students by time of enrolment in the programmes (Verduin and Clark 1991:5). However, it is vital to sustain this motivation throughout the study period. Also, teachers trained in these INSET programmes should emerge as highly motivated and well prepared students. However, in this study, it is feared that the B.Ed (External) is not effectively equipping teachers with the relevant competencies. Also, service delivery in the programme has some weaknesses that may be impacting the motivation of the students (section 6.6 explores a number of weaknesses of the B.Ed External). All this needs to be dealt with and high quality management and service delivery and high quality teaching/learning environment can lead to highly motivated and well-prepared students. A highly motivated and well-prepared student is one who has effective study skills and one who is capable of carrying out independent study (Verduin and Clark 1991:124 - 127). Where the student has inadequate entry requirements, bridging

courses would help boost the student's self-confidence and heighten his/her motivation Robinson and Latchem (2003c:237). These elements are illustrated in figure 8.5.

Figure 8.5: Major Components of Highly Motivated and Well-Prepared Students in Distance Education



a) Effective Study Skills and Bridging Courses

1. Bridging courses for students that do not have the minimum requirements.
2. Study skills course for all students to help them study more effectively as distance learners.
3. Specific skills in getting the best out of the study materials and support services

b) Independent Learners

1. Activities that help develop self-confident students capable of working most of the time on their own.
2. Activities that motivate students and encourage them to engage in individual and group learning
3. Higher-level learner outcomes including ability to analyse, synthesise and evaluate courses.

8.3.5 High Pass Rates, Low Dropout Rates & High Quality Teachers

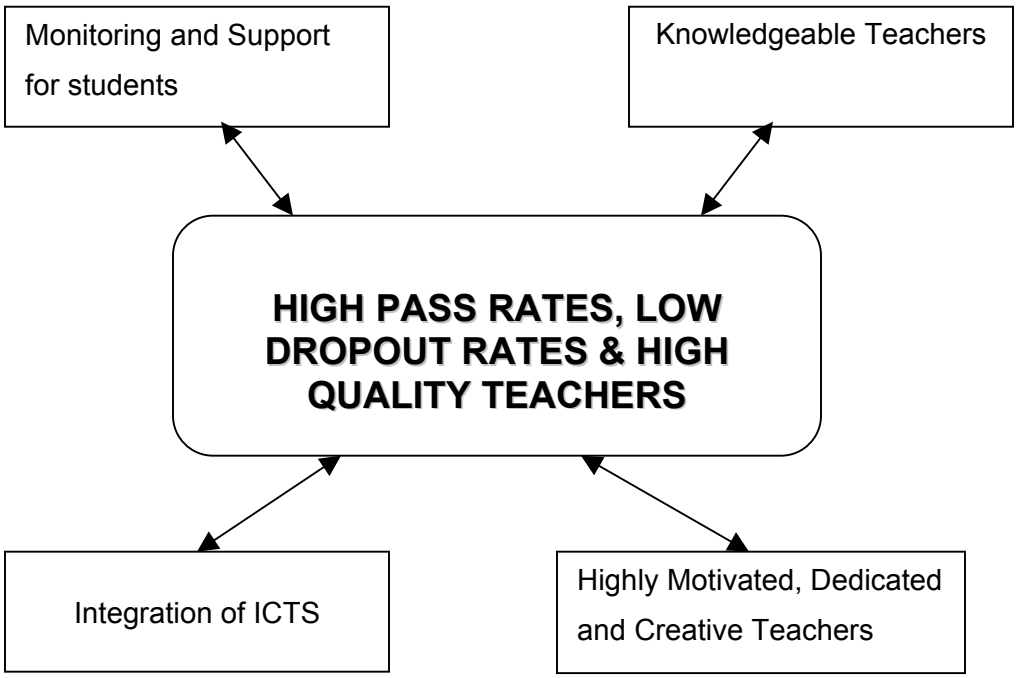
One of the major problems distance education faces is low pass rates and high dropout rates (Holmberg 2001:73, Keegan and Rumble 1982:228, Paul 1990:79, Perraton 2000:12, Perraton et al. 2001:30, Tooth 2000:2). According to Tooth (2002:2), h*igh dropout rates are endemic in distance education programmes, and every effort must be made to encourage*

students to persevere. Whereas distance education is known to register high enrolments, completion rates and pass rates are not always high (Perraton, et al. 2001:30). So the problem of dropout must be dealt with so as to achieve high pass rates, low dropout rates and produce high quality teachers. This should be one of the marks of a good distance education programme. The core elements of this are:

- Effective monitoring and support for students (Department of Distance Education 2000:2, Holmberg 2001:39, O'Shea and Downes 1997:64, Robinson 1996:10, Robertshaw 2000:2)
- Knowledgeable teacher (Ben-Peretz 1994:5992, Dove 1986:241, Iredale 1996:13, Moon and Robinson 2003:74, Perraton et al. 2002:8, Robinson and Latchem 2003a:4).
- Highly motivated and creative teachers.

The components of these key elements will now be discussed briefly in the next sub sections and are also illustrated in figure 8.6.

Figure 8.6: Major Components of High Pass Rates, Low Dropout Rates and High Quality Teachers in Distance Education



a) Monitoring and Support for students

1. Counselling and support for the weak students

2. Plans for retention of learners in the programmes
3. Continuous research on pass rates, dropout rates and student retention in the programme

b) Knowledgeable Teacher

1. Good command of the subject content
2. Understanding and knowledge of the learners and their needs
3. Clear grasp and understanding of pedagogical knowledge and when to apply the knowledge and skills
4. Wide general knowledge and readiness to continue learning
5. An appreciation of potential of ICTs in education
6. Basic computer skills and knowledge

c) Highly Motivated and Creative Teachers

1. Activities that will promote passion and love for the teaching profession and dedication to it
2. Teaching/learning activities that will encourage innovation and creativity among the students
3. Follow up of all the students
4. School based mentoring and support for the students

d) Integration of ICTs

1. Student access to all the ICTs being used in the programmes
2. Efficient and effective study centres that are well equipped and resourced
3. Training of students in maximum utilisation of ICTs for study purposes and as teachers in schools
4. Maximum utilisation of ICTs for monitoring and supporting students

8.3.6 Confidence In Distance Education and Willingness To Invest in It

There seem to be some reservations with regard to the efficacy of distance education to deliver high quality programmes (Paul 1990:59, Perraton 2000:82, 199). This suspicion seems to plague the B.Ed (External) as well because from the data gathered in this study, there are fears that the graduates of B.Ed (External) are not as good as the teachers trained

in internal programmes. There is therefore need to ensure that this programme is run in such a manner as to establish confidence in distance education and this can be achieved if the programme has high pass rates, low dropout rates and produces high quality teachers. Established confidence in distance education will motivate government, the private sector managers and administrators to invest in it. Elements of this are:

- Policy on distance education (Haddad and Jurich 2002:49)
- Government and institutional investment in distance education (Bates 2000:19, Berge 2001b:19, Orivel 1994:1572).
- Student willingness to invest in their studies
- Community involvement and participation in the programme

Figure 8.7 illustrates these elements of confidence in distance education and willingness to invest in it.

a) Policy on Distance Education

1. Clearly spelt out national and institutional policies that promote growth and development of distance education
2. Political and institutional support and acceptance of distance education
3. Clear policies on recruitment and promotion for graduates of distance education programmes

b) Government and Institutional Investment

1. Definite budget lines for distance education programmes
2. Plans for resource mobilisation and allocation
3. Staff development especially on distance education and Information Communication Technologies

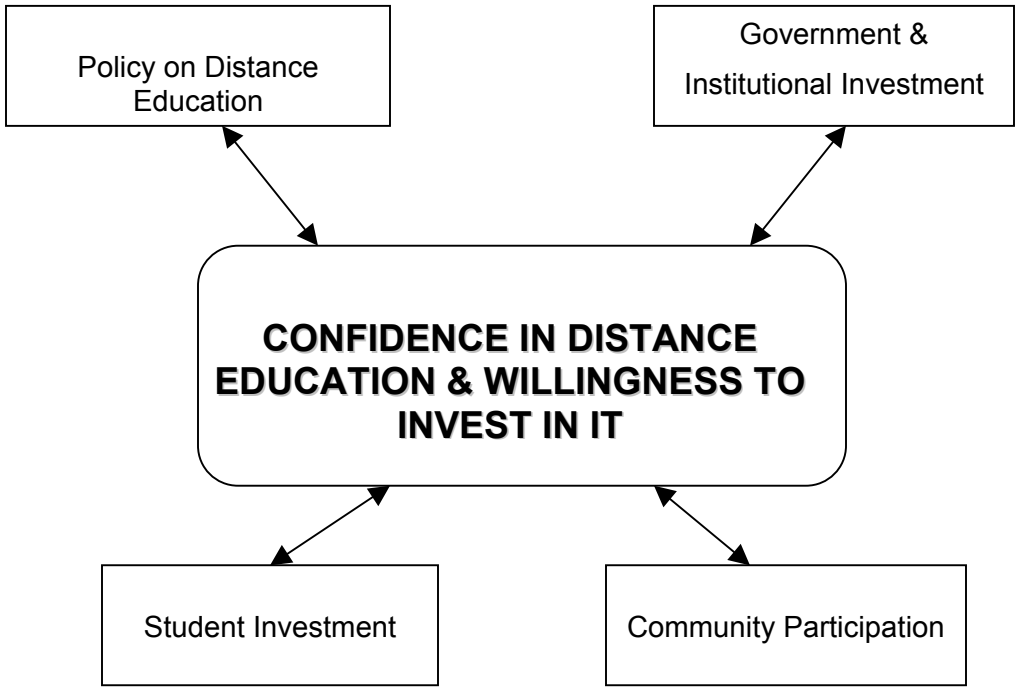
c) Student Investment

1. Willingness to pay fees and purchase study materials
2. Time management skills to ensure students can and will plan time for study
3. Strategies for financial support for students

d) Community Participation

1. Plans that involve the local communities in supporting distance learners
2. Collaborative ventures with Public Libraries, Teachers' Colleges, Resource Centres and other local community institutions.

Figure 8.7: Major Components of Confidence in Distance Education & Willingness to Invest in it



8.3.7 Implementing The Framework

The framework presented in sections 8.3.1 – 8.3.6 as mentioned earlier presents a set of guidelines that can be the beginning of a journey to better INSET programmes. However, to implement this framework it is vital that Makerere University or any other university providing INSET programmes, put in place institutional structures and systems that will permit this implementation to take place. Makerere University for instance needs:

- To strengthen it's Department of Distance Education in terms of capacity and decision making role.
- Recognise that distance education and distance education students are different from internal programmes and internal students. Special plans should therefore be made to cater for the needs of the programmes and the needs of the students.

- Work towards much more flexible management and administration of the programmes by reducing bureaucracy.

In addition to internal structures and systems, there is need for a closer collaboration with the Ministry of Education and Sports. This collaboration should particularly be with the following departments in the Ministry:

- Education Service Agency
- Department of Higher Education
- Department of Secondary Education
- Department of Teacher Education
- With the Curriculum Development Centre; and
- Any other Departments that may have a stake on INSET for secondary school teachers in the country.

Makerere University may therefore need to establish structures that ensure regular consultations with these Departments.

This section (8.3) has presented a proposed Framework for High Quality INSET Distance Education for Secondary School Teachers in Uganda. This framework sets out guidelines in the areas of:

- Management and Service Provision
- Teaching and Learning Environment
- Motivation and Preparation of Students
- Pass Rates, Drop out Rates and Performance of Teachers
- Attitudes and Investment in Distance Education

These guidelines can form the beginning of the reform process of the B.Ed (External) however, for Makerere University to implement this framework, institutional structures and systems that enhance this implementation need to be put in place.

8.4 SUMMARY

This chapter has dealt with a summary of what is outlined in the rest of the chapters, the highlights of the research findings, presents the conclusions and implications drawn and outlines recommendations that have been made.

This study set out to 'critically examine the existing model for the provision of distance education In-Service Teacher Education (INSET) for secondary school teachers in Uganda against existing contemporary distance education theories and practice, identify the model's strengths and weaknesses thereby establishing its efficacy to provide quality teacher education and suggest a framework for improvement'. From the study, it is evident that distance education has a lot of potential to meet educational needs and has indeed been used in a number of countries for various purposes. It has also been used in Uganda, and in Makerere University in particular, especially for the training, retraining and upgrading of teachers. However, the study has revealed that, in spite of the many achievements, the models used in the different programmes that have been discussed in the study have some weaknesses. There is clearly therefore need to revisit the models being used for the provision of In-Service Teacher Education programmes so as to break out of the vicious cycle of mediocre distance education programmes. To do so, this study recommends a framework for high quality INSET distance education for secondary school teachers in Uganda. The suggestion here is that this framework should be viewed as guidelines for further reflection and discussion of the current model.

In spite of what the findings, conclusions and implications of this study, there were some limitations encountered and these are now presented in the next section.

8.5 LIMITATIONS OF THE STUDY

This was a descriptive and evaluative study that depended a lot on qualitative data drawn from the different stakeholders of teacher education in Uganda. The preceding chapters all do indicate that a lot of ground was covered in the study and a valuable contribution hopefully made to INSET by distance education in Uganda in particular and INSET by distance education in general. However, there are some limitations that affected the data collection and there are also other limitations that may have affected the entire study.

To minimise the error effects of these limitations, the researcher used a number of strategies as outlined in chapter four section 4.8, but it is still vital to bring these limitations to the fore so that the reading, understanding and interpretation of this study should be with these limitations in mind.

1. All the research instruments were self-developed and this could be a limiting factor to the study. Although the researcher attempted to use the literature reviewed to draw up items in the instruments, nevertheless, self-developed instruments can be said to be subject to the researcher's subjectivity.

2. The questionnaires (appendices II – IV) had a lot of open questions whose responses could have been influenced by the respondents' attitudes. This could therefore limit the extent to which these responses can be generalised.

3. The sampling strategies used could have also lent the study to bias and subjectivity since as outlined in chapter 4 section 4.6.2 non-probability sampling was largely used.

4. All the interviews were conducted, transcribed and coded by the researcher. Self-administered, transcribed and coded data may be influenced by the researcher's own subjectivity. The use of many interviewers could give rise to varied interpretation of questions and so having one interviewer implies that all the questions are similarly interpreted. Nevertheless, the researcher's subjectivity is not entirely eliminated.

5. Literature on theory of distance education by Sub Saharan authors is unavailable whilst literature on distance education in Uganda is very limited. The theories included in this study are all put forward by European authors and one could argue that they may therefore not be entirely relevant to sub Saharan Africa. The key elements these theories do raise however could be said to be relevant to distance education practice in any country.

6. This study focused on the Makerere University B.Ed (External) programme although it explored the strengths and weaknesses of some of the other INSET distance education programmes. Nevertheless, other INSET distance education programmes were not discussed. Insights from such programmes have therefore not been taken into account. This may limit the generalisability of the findings of this study to all INSET distance education programmes in Uganda.

7. Insecurity in the North of the country. Initial plans were to visit among others Lira district. However, by October 2002 when the fieldwork started, the security situation in Lira had

deteriorated as a result of Kony rebel activities. As an alternative, Masindi district was instead visited.

8. Many officials at Ministry of Education and Sports headquarters, District Education offices, National Teachers' Colleges, Primary Teachers' Colleges, Makerere University and Kyambogo University confessed to having heavy schedules. This therefore made some of them unwilling to be interviewed or unable to keep appointments made for the interviews. For those who received questionnaires, their busy schedules made it difficult for them to promptly return the questionnaires and in some cases completely fail to return the same.

Since this study was not totally exhaustive and since it also had limitations as outlined above, the interpretation and application of the findings should be with these limitations in mind. Also, this study has raised further questions that are now presented here as suggestions for further research.

8.6 SUGGESTIONS FOR FUTHER RESEARCH

As already discussed, this study has not been exhaustive, it had its own limitations and on the basis of the research findings, there are areas for further research that have been identified. These are:

1. A number of distance education teacher education programmes have been offered in the country but no studies have been carried out to establish the impact of these programmes on the school system. It is therefore vital that this be carried out. In particular, the B.Ed (External) programme is upgrading secondary school teachers who should now be able to teach in the 'A' Level. However, this study has revealed that some policy makers believe these graduates are incapable of handling these classes. Are these views based on attitudes or are they based on the teachers' actual inabilities?

2. Uganda's primary and secondary schools have teachers of different qualifications involved at each stage. However, it is not clear what impact this has on the school system and this needs to be determined particularly as more and more teachers seek to upgrade their qualifications and the attendant result of a larger wage bill. Is this justifiable and why?

3. The Ministry of Education and Sports has clearly stated objectives for teacher education in the country, however due to lack of evaluative studies of teacher education programmes in the country, it is not clear how far each of these objectives is being deliberately attended to in the various teacher education programmes and it is also not certain if this so, how far these are being achieved. This is therefore an area for further study.

4. Completion rates in some of the programmes discussed in this study were very low. The B.Ed (External) is also still registering high drop out rates and it is not entirely clear why this is so. To ensure higher retention and better passes, reason for both drop out and low pass rates need to be identified.

5. This study also revealed that there was general consensus among the respondents that the government of Uganda needs to come up with a clear policy on distance and open learning in the country. This study identified some of the issues that could be included in this policy but perhaps more specific and comprehensive study needs to be carried out with a draft policy as an outcome.

6. This study has also revealed that a lot of coordination and collaboration is needed for the success of distance education. The Department of Distance Education, Makerere University needs to identify these potential partners and plans for the partnership worked out.

7. Although this study revealed that there is general consensus on the efficacy of distance education to meet the educational needs of the country, there was reluctance to believe that distance education can be used for science-oriented courses. At the same time, a number of other courses including some science-oriented courses were listed as courses that could be offered by distance education. It is perhaps necessary to carry out a needs assessment of the knowledge and skills needed in the country and the role that distance education can play in meeting this need. Also, since Makerere University has already launched a Bachelor of Science (External) programme, clear monitoring strategies should be put in place to determine the effectiveness of the programme.

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APPENDIX I: MAP OF UGANDA

Source: UN, (May 2003) http://www.un.org/Depts/Cartographic/map/profile/uganda.pdf

APPENDIX II
QUESTIONNAIRE FOR MANAGERS AND TUTORS OF THE BACHELOR OF EDUCATION (B.Ed) EXTERNAL DEGREE PROGRAMME OF MAKERERE UNIVERSITY

20th October 2002

Dear Sir/Madam,

RESEARCH QUESTIONNAIRE

I am currently registered with the University of Pretoria for a PhD in Curriculum Instruction and Teaching. This questionnaire is part of a study that is meant to examine the distance education model being used in the provision of In-service Teacher Education for Secondary School Teachers in Uganda and to identify ways in which this model can be improved and Information Communication Technologies integrated.

As a tutor/manager/writer/reviewer on the External Degree programme, you must have a lot to contribute to this study; so please respond to the questions in the attached questionnaire as honestly as possible. Your responses will be treated with utmost confidentiality and will not be used against anyone.

Thank you for your cooperation and support.

Yours Sincerely

Jessica N. Aguti
PhD Student

QUESTIONNAIRE FOR MANAGERS AND TUTORS OF THE BACHELOR OF EDUCATION (B.Ed) EXTERNAL DEGREE PROGRAMME OF MAKERERE UNIVERSITY

Instructions:
For each question, please tick (✔) or fill in the blanks as necessary

For official use

1. Respondent number — V1 ☐☐☐ 1-3

Section A: Personal Information

2. Age _____Years — V2 ☐☐ 4-5

3. Gender

Female	1
Male	2

V3 ☐ 6

4. Institution

Makerere University	1
Kyambogo University	2
Other (Specify) _____	

V4 ☐ 7

V5 ☐ 8

5. Position

Professor	1
Associate Professor	2
Senior Lecturer	3
Lecturer	4
Assistant Lecturer	5
Teaching Assistant	6
Other (Specify) _____	

V6 ☐ 9

V7 ☐☐ 10-11

Section B: Potential Of Distance Education

6. Do you think Distance Education has the potential to meet educational needs in Uganda?

Yes	**No**
1	2

V8 ☐ 12

7. If **Yes**, which of these areas of specialisation do you think could be served by distance education?

	Yes	**No**
Education	1	2
Law	1	2

V9 ☐ 13

V10 ☐ 14

Social Sciences	1	2	V11 15
Arts Courses	1	2	V12 16
Science Courses	1	2	V13 17
Engineering	1	2	V14 18
Medicine	1	2	V15 19
Other (Specify) _____			V16 20-21

8. If your answer to any of the items in question 7 above was **NO**, why do you think distance education cannot be used to offer those courses?

_____
_____
_____
_____
_____
_____
_____
_____

V17 22-23

V18 24-25

V19 26-27

9. Which issues do you think should be highlighted in a policy on Distance and Open Learning

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

V20 28-29

V21 30-31

V22 32-33

V23 34-35

10. In your opinion, do the following factors impact distance education in Uganda?

	Yes	No
Expertise in distance education	1	2
Government policy on distance education	1	2
Institutional policies on distance education	1	2
Funding of distance education programmes	1	2
Access to technology in the country	1	2

V24 36

V25 37

V26 38

V27 39

V28 40

Management and administrative systems in institutions of learning	1	2	V29	41
Attitudes towards distance education	1	2	V30	42
Other (Specify) _____ _____			V31	43

Section C: Teacher Education by Distance Programmes

11. Have you participated in any of the following Teacher Education Programmes?

	Yes	No		
MITEP	1	2	V32	44
NITEP	1	2	V33	45
TDMS Headteacher Training programme	1	2	V34	46
TDMS Grade III Teachers' Course	1	2	V35	47
TDMS Outreach Tutor Training	1	2	V36	48
Kyambogo University Diploma In Primary Education	1	2	V37	49
Makerere University B.Ed (External)	1	2	V38	50
Other (Specify) _____			V39	51-52

12. In what capacity did you participate in these programmes?

		Yes	No		
MITEP	Reviewer	1	2	V40	53
	Tutor	1	2	V41	54
	Manager	1	2	V42	55
	Trainer	1	2	V43	56
	Writer	1	2	V44	57
		Yes	**No**		
NITEP	Reviewer	1	2	V45	58
	Tutor	1	2	V46	59
	Manager	1	2	V47	60
	Trainer	1	2	V48	61
	Writer	1	2	V49	62

		Yes	No		
TDMS Headteacher Training programme	Reviewer	1	2	V50	63
	Tutor	1	2	V51	64
	Manager	1	2	V52	65
	Trainer	1	2	V53	66
	Writer	1	2	V54	67
		Yes	**No**		
TDMS Grade III Teachers' Course	Reviewer	1	2	V55	68
	Tutor	1	2	V56	69
	Manager	1	2	V57	70
	Trainer	1	2	V58	71
	Writer	1	2	V59	72
		Yes	**No**		
Kyambogo University Diploma in Pr. Ed.	Reviewer	1	2	V60	73
	Tutor	1	2	V61	74
	Manager	1	2	V62	75
	Trainer	1	2	V63	76
	Writer	1	2	V64	77
		Yes	**No**		
Makerere University	Reviewer	1	2	V65	78
	Tutor	1	2	V66	79
	Manager	1	2	V67	80
	Trainer	1	2	V68	81
	Writer	1	2	V69	82

		Yes	No
Other (Specify) _____	Reviewer	1	2
	Tutor	1	2
	Manager	1	2
	Trainer	1	2
	Writer	1	2

V70 [ ] 83
V71 [ ] 84
V72 [ ] 85
V73 [ ] 86
V74 [ ] 87

13. List below the **strengths** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____
_____

V75 [ ][ ] 88-89
V76 [ ][ ] 90-91
V77 [ ][ ] 92-93
V78 [ ][ ] 94-95
V79 [ ][ ] 96-97

14. List below the **weaknesses** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

V80 [ ][ ] 98-99
V81 [ ][ ] 100-101
V82 [ ][ ] 102-103
V83 [ ][ ] 104-105
V8 4 [ ][ ] 106-107

15. What do you think could be done to improve these programmes and enhance their:

a. Management

_____
_____
_____
_____
_____
_____

V85 [ ][ ] 108-109
V86 [ ][ ] 110-111
V87 [ ][ ] 112-113

b. Study materials development and provision

_____
_____
_____
_____
_____
_____

V88 [ ][ ] 114-115
V89 [ ][ ] 116-117
V90 [ ][ ] 118-119

c. Student support in the programme (provision of information, face to face sessions, student group meetings, library services, and counselling) _____ _____ _____ _____ _____ _____ **d. Student Assessment and examinations** _____ _____ _____ _____ _____ _____	V91 [ ][ ] 120-121 V92 [ ][ ] 122-123 V93 [ ][ ] 124-125 V94 [ ][ ] 126-127 V95 [ ][ ] 128-129 V96 [ ][ ] 130-131
16. Some of the subjects like Art and Crafts, Sciences, and Languages require practical work. How do you think distance education programmes can cater for this? _____ _____ _____ _____ _____ _____	V97 [ ][ ] 132-133 V98 [ ][ ] 134-135 V99 [ ][ ] 136-137
17. Teaching/school practice is an important element in Teacher Education. How do you think this can be catered for in distance education In-service Teacher Education programmes? _____ _____ _____ _____ _____ _____ _____ _____	V100 [ ][ ] 138-139 V101 [ ][ ] 140-141 V102 [ ][ ] 142-143 V103 [ ][ ] 144-145
18. It is important that quality assurance mechanisms are put in place to ensure that the distance education Teacher Education Programmes in the country are of high quality. Please suggest strategies that you think should be adopted to ensure that this is achieved. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	V104 [ ][ ] 146-147 V105 [ ][ ] 148-149 V106 [ ][ ] 150-151 V107 [ ][ ] 152-153

19. If teachers already in service are to enroll on distance education Teacher Education programmes either for retraining or for upgrading, what should be done to ensure these programmes cater for the needs of the teachers and schools?

_____
_____
_____
_____
_____
_____
_____

V108 [ ][ ] 54-155
V109 [ ][ ] 56-157
V110 [ ][ ] 58-159
V111 [ ][ ] 60-161

Section D: Bachelor of Education (B.Ed) External

20. Do you think the following competencies are important to teachers?

	Yes	No	
Communication skills	1	2	V112 [ ] 162
Critical thinking skills	1	2	V113 [ ] 163
Problem solving skills	1	2	V114 [ ] 164
Knowledge of resources required to teach/learn	1	2	V115 [ ] 165
Knowledge of subject matter	1	2	V116 [ ] 166
Teaching skills	1	2	V117 [ ] 167
Designing learning materials	1	2	V118 [ ] 168
Research skills	1	2	V119 [ ] 169
Involving community in school	1	2	V120 [ ] 170
Administering and managing education activities	1	2	V121 [ ] 171
Curriculum development	1	2	V122 [ ] 172
Assessing and examining	1	2	V123 [ ] 173

Others (Specify)
_____
_____

V124 [ ][ ] 174-175

21. Do you think the **B.Ed (External)** of Makerere University helps teachers acquire these competencies?

	Yes	No	
Communication skills	1	2	V125 [ ] 176
Critical thinking skills	1	2	V126 [ ] 177
Problem solving skills	1	2	V127 [ ] 178

Knowledge of resources required to teach/learn	1	2	V128 179
Knowledge of subject matter	1	2	V129 180
Teaching skills	1	2	V130 181
Designing learning materials	1	2	V131 182
Research skills	1	2	V132 183
Involving community in school	1	2	V133 184
Administering and managing education activities	1	2	V134 185
Curriculum development	1	2	V135 186
Assessing and examining	1	2	V136 187

Others (Specify)
_____
_____

V137 188-189

22. If your answer to any of the above is **NO**, please give reasons as to why you say the **B.Ed (External)** does not help teachers acquire these competencies

_____
_____
_____
_____
_____
_____
_____
_____
_____

V138 190-191
V139 192-193
V140 194-195
V141 196-197
V142 198-199

23. What do you think are the **strengths** of the **B.Ed (External)** with regard to its:

a. Content of the programme

_____
_____
_____
_____
_____
_____

V143 200-201
V144 202-203
V145 204-205

b. Practical Work (in subjects like Fine Art, Languages; and in teaching practice)

_____
_____
_____
_____
_____
_____
_____

V146 206-207
V147 208-209
V148 210-211

c. Management

_____
_____
_____
_____
_____
_____

V149 [ ][ ] 212-213
V150 [ ][ ] 214-215
V151 [ ][ ] 216-217

d. Study materials provision

_____
_____
_____
_____
_____
_____

V152 [ ][ ] 218-219
V153 [ ][ ] 220-221
V154 [ ][ ] 222-223

e. Student support in a programme (provision of information, face to face sessions, student group meetings, library services, and counselling)

_____
_____
_____
_____
_____
_____

V155 [ ][ ] 224-225
V156 [ ][ ] 226-227
V157 [ ][ ] 228-229

f. Student Assessment and examinations

_____
_____
_____
_____
_____
_____

V158 [ ][ ] 230-231
V159 [ ][ ] 232-233
V160 [ ][ ] 234-235

24. What do you think are the **weaknesses** of the **B.Ed (External)** with regard to its:

a. Content of the programme

_____
_____
_____
_____
_____
_____

V161 [ ][ ] 236-237
V162 [ ][ ] 238-239
V163 [ ][ ] 240-241

b. Practical Work (in subjects like Fine Art, Languages; and in teaching practice)

_____
_____
_____
_____
_____
_____

V164 [ ][ ] 242-243
V165 [ ][ ] 244-245
V166 [ ][ ] 246-247

c. Management of the programme

_____
_____
_____
_____
_____

V167 [ ][ ] 248-249
V168 [ ][ ] 250-251
V169 [ ][ ] 252-253

d. Study materials development and provision

_____
_____
_____
_____
_____
_____

V170 [ ][ ] 254-255
V171 [ ][ ] 256-257
V172 [ ][ ] 258-259

e. Student support in a programme (provision of information, face to face sessions, student group meetings, library services, and counselling)

_____
_____
_____
_____
_____
_____

V173 [ ][ ] 260-261
V174 [ ][ ] 262-263
V175 [ ][ ] 264-265

f. Student assessment and examinations

_____
_____
_____
_____
_____
_____

V176 [ ][ ] 266-267
V177 [ ][ ] 268-269
V178 [ ][ ] 270-271

Section E: Information Communication Technology

25. Do you have access to any of the following Information Communication Technology?

	Yes	No	
Radio	1	2	V179 [ ] 272
Audio Cassette	1	2	V180 [ ] 273
Television (TV)	1	2	V181 [ ] 274
Video	1	2	V182 [ ] 275
Computer	1	2	V183 [ ] 276
Internet	1	2	V184 [ ] 277

26. If you have access to the Information Communication Technologies, please indicate where you can access this technology.

		Yes	No		
Radio	Home	1	2	V185	278
	Friend's home	1	2	V186	279
	Relative's home	1	2	V187	280
	Office	1	2	V188	281
	Makerere University Centre	1	2	V189	282
	Other (specify) _____			V190	283-284

		Yes	No		
Audio Cassette	Home	1	2	V191	285
	Friend's home	1	2	V192	286
	Relative's home	1	2	V193	287
	Office	1	2	V194	288
	Makerere University Centre	1	2	V195	289
	Other (specify) _____			V196	290-291

		Yes	No		
Television (TV)	Home	1	2	V197	292
	Friend's home	1	2	V198	293
	Relative's home	1	2	V199	294
	Office	1	2	V200	295
	Makerere University Centre	1	2	V201	296
	Other (specify) _____			V202	297-298

		Yes	No		
Computer	Home	1	2	V203	299
	Friend's home	1	2	V204	300
	Relative's home	1	2	V205	301
	Office	1	2	V206	302
	Makerere University Centre	1	2	V207	303
	Other (specify) _____			V208	304-305

		Yes	No		
Internet	Home	1	2	V209	306
	Friend's home	1	2	V210	307
	Relative's home	1	2	V211	308
	Office	1	2	V212	309
	Makerere University Centre	1	2	V213	310
	Other (specify) _____			V214	11-312

27. Which of this Information Communication Technology do you think should be used for the **B.Ed (External) Degree** programme activities?

	Yes	No		
Radio	1	2	V215	313
Audio Cassette	1	2	V216	314
Television (TV)	1	2	V217	315
Video	1	2	V218	316
Computer	1	2	V219	317
Internet	1	2	V220	318
Print	1	2	V221	309

28. Why should the Information Communication Technologies you have chosen in No. 27 above be used? Write your response in the relevant space.

a. Radio

_____
_____
_____
_____
_____
_____
_____

V222 [ ][ ] 310-311

b. Audio Cassette

_____
_____
_____
_____
_____
_____
_____

V223 [ ][ ] 312-313

c. Television (TV)

_____
_____
_____
_____
_____
_____
_____

V224 [ ][ ] 314-315

d. Video

_____
_____
_____
_____
_____
_____
_____

V225 [ ][ ] 316-317

e. Internet

_____
_____
_____
_____
_____
_____
_____

V226 [ ][ ] 318-319

f. Print

_____
_____
_____
_____
_____

V227 [ ][ ] 320-321

V228 [ ][ ] 322-323

V229 [ ][ ] 324-325

V230 [ ][ ] 326-327

V231 [ ][ ] 328-329

V232 [ ][ ] 330-331

V233 [ ][ ] 332-333

V234 [ ][ ] 334-335

V235 [ ][ ] 336-337

V236 [ ][ ] 338-339

V237 [ ][ ] 340-341

V238 [ ][ ] 342-343

V239 [ ][ ] 344-345

29. How do you think the integration of Information Communication Technology in the B.Ed External should be financed?

	Yes	No		
From tuition fees being charged	1	2	V240	346
From additional charges	1	2	V241	347
From government subsidies	1	2	V242	348
From Donor community	1	2	V243	349
Local Community support	1	2	V244	350
Other sources (specify) _____ _____			V245	351-352

Section F: General Comments

30. Please give general comments you may have with regard to each of the following:

a) Distance Education for Teacher Education

_____
_____
_____
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_____
_____
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_____
_____

V246		353-354
V247		355-356
V248		357-358
V249		359-360
V250		361362
V251		363-364

b) Use of Information Communication Technologies for Distance Education Teacher Education programmes in Uganda

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

V252		365-366
V253		367-368
V254		369-370
V255		371-372
V256		373-374
V257		375-376

THANK YOU

APPENDIX III
QUESTIONNAIRE FOR DISTANCE EDUCATION STUDENTS

20th October 2002

Dear Sir/Madam,

RESEARCH QUESTIONNAIRE

I am currently registered with the University of Pretoria for a PhD in Curriculum Instruction and Teaching. This questionnaire is part of a study that is meant to examine the distance education model being used in the provision of In-service Teacher Education for Secondary School Teachers in Uganda and to identify ways in which this model can be improved and Information Communication Technologies integrated.

As a student on the External Degree programme, you must have a lot to contribute to this study; so please respond to the questions in the attached questionnaire as honestly as possible. Your responses will be treated with utmost confidentiality and will not be used against anyone.

Thank you for your cooperation and support.

Yours Sincerely

Jessica N. Aguti
PhD Student

QUESTIONNAIRE FOR DISTANCE EDUCATION STUDENTS

Instructions:
For each question, please tick (✓) or fill in the blanks as necessary

	For official use
1. Respondent number	V1 ☐☐☐ 1-3
Section A: Personal Information	
2. Age _____Years	V2 ☐☐ 4-5
3. Gender Female 1 Male 2	V3 ☐ 6
4. Work Place Pre-primary school 1 Primary School 2 Secondary school 3 Primary Teachers' College 4 Education office 5 Others (specify) _____	V4 ☐☐ 7-8 V5 ☐☐ 9-10
5. Position Head Teacher 1 Head of Department 2 Teacher 3 Inspector of Schools 4 Education officer 5 Assistant Education officer 6 Other (Specify) _____	V6 ☐☐ 11-12 V7 ☐☐ 13-14
Section B: Potential Of Distance Education	
6. Do you think Distance Education has the potential to meet educational needs in Uganda? **Yes** 1 **No** 2	V8 ☐ 15

7. If **Yes**, which of these fields of specialisation do you think could be served by distance education?

	Yes	No
Education	1	2
Law	1	2
Social Sciences	1	2
Arts Courses	1	2
Science Courses	1	2
Engineering	1	2
Medicine	1	2
Other (Specify) _____ _____		

V9 [ ] 16
V10 [ ] 17
V11 [ ] 18
V12 [ ] 19
V13 [ ] 20
V14 [ ] 21
V15 [ ] 22
V16 [ ][ ] 23-24

8. If your answer to any of the items in question 7 above was **NO**, why do you think distance education cannot be used to offer those courses?

_____
_____
_____
_____
_____
_____

V17 [ ][ ] 25-26
V18 [ ][ ] 27-28
V19 [ ][ ] 29-30

9. Do you think government needs to come up with a clear policy on Distance and Open Learning?

Yes	No
1	2

V20 [ ] 31

10. If your answer to question 9 was yes, which issues do you think should be highlighted in such a policy?

_____
_____
_____
_____
_____

V21 [ ][ ] 32-33
V22 [ ][ ] 34-35
V23 [ ][ ] 36-37

11. In your opinion, do the following factors impact on distance education in Uganda?

	Yes	No
Expertise in distance education	1	2
Government policy on distance education	1	2
Institutional policies on distance education	1	2

V24 [ ][ ] 38-39
V25 [ ][ ] 40-41
V26 [ ][ ] 42-43

Finance	1	2	V27 44-45
Access to technology in the country	1	2	V28 46-47
Management and administrative systems	1	2	V29 48-49
Attitudes towards distance education	1	2	V30 50-51
Other (Specify) _____ _____			V31 52-53

Section C: Teacher Education by Distance Programmes

12. Have you participated in any of the following Distance Education Teacher Training Programmes?

	Yes	No	
MITEP	1	2	V32 54
NITEP	1	2	V33 55
TDMS Headteacher Training programme	1	2	V34 56
TDMS Grade III Teachers' Course	1	2	V35 57
TDMS Outreach Tutor Training	1	2	V36 58
Kyambogo University Diploma In Primary Education	1	2	V37 59
Makerere University B.Sc. (External)	1	2	V38 60
Other (Specify) _____ _____			V39 61

13. In what capacity did you participate in these programmes?

		Yes	No	
MITEP	Student	1	2	V40 62
	Tutor	1	2	V41 63
	Manager	1	2	V42 64
	Trainer	1	2	V43 65
	Writer	1	2	V44 66

		Yes	No		
NITEP	Student	1	2	V45	67
	Tutor	1	2	V46	68
	Manager	1	2	V47	69
	Trainer	1	2	V48	70
	Writer	1	2	V49	71

		Yes	No		
TDMS Headteacher Training programme	Student	1	2	V50	72
	Tutor	1	2	V51	73
	Manager	1	2	V52	74
	Trainer	1	2	V53	75
	Writer	1	2	V54	76

		Yes	No		
TDMS Grade III Teachers' Course	Student	1	2	V55	77
	Tutor	1	2	V56	78
	Manager	1	2	V57	79
	Trainer	1	2	V58	80
	Writer	1	2	V59	81

		Yes	No		
Kyambogo University Diploma in Pr. Ed.	Student	1	2	V60	82
	Tutor	1	2	V61	83
	Manager	1	2	V62	84
	Trainer	1	2	V63	85
	Writer	1	2	V64	86

		Yes	No		
Makerere University	Student	1	2	V65	87
	Tutor	1	2	V66	88
	Manager	1	2	V67	89
	Trainer	1	2	V68	90
	Writer	1	2	V69	91
		Yes	**No**		
Other (Specify) _____	Student	1	2	V70	92
	Tutor	1	2	V71	93
	Manager	1	2	V72	94
	Trainer	1	2	V73	95
	Writer	1	2	V74	96

14. List below the **strengths** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____

V75 97-98
V76 99-100
V77 101-102
V78 103-104
V79 105-106

15. List below the **weaknesses** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____

V80 107-108
V81 109-110
V82 111-112
V83 113-114
V84 115-116

16. What do you think could be done to improve these programmes and enhance their:

a. Management

_____
_____
_____

V85 117-118
V86 119-120

_____ _____ **b. Study materials provision** _____ _____ _____ _____ _____ **c. Student Support** (provision of information, face to face sessions, student group meetings, library services, and counselling) _____ _____ _____ _____ _____ **d. Assessment and examinations** _____ _____ _____ _____ _____	V87 [ ][ ] 121-122 V88 [ ][ ] 123-124 V89 [ ][ ] 125-126 V90 [ ][ ] 127-128 V91 [ ][ ] 129-130 V92 [ ][ ] 132-133 V93 [ ][ ] 134-135 V94 [ ][ ] 136-137 V95 [ ][ ] 138-139 V96 [ ][ ] 140-141
Section D: Bachelor of Education External	
17. Why did you join the **B.Ed (External)** Degree Programme? To improve my teaching skills 1 To keep up-to-date with new methods of teaching 2 To gain more knowledge on the teaching subjects 3 To obtain promotion 4 To ensure job security 5 To gain higher qualification 6 Other (Specify) _____	V97 [ ] 142-143 V98 [ ] 143-144 V99 [ ] 145-146 V100 [ ] 147-148 V101 [ ] 149-150 V103 [ ] 151-152 V104 [ ][ ] 153-154
18. Do you think the following competencies are important to teachers? Communication skills 1 2 Critical thinking skills 1 2 Problem solving skills 1 2	V105 [ ] 155 V106 [ ] 156 V107 [ ] 157

Knowledge of resources required to teach/learn	1	2	V108	158
Knowledge of subject matter	1	2	V109	159
Teaching skills	1	2	V110	160
Designing learning materials	1	2	V111	161
Research skills	1	2	V112	162
Involving the community in the school	1	2	V113	163
Administering and managing education activities	1	2	V114	164
Curriculum development			V115	165
Assessing and examining			V116	166
Others _____			V117	167-168

19. Do you think the **B.Ed (External)** of Makerere University helps teachers acquire these competencies? **Yes** **No**

Communication skills	1	2	V118	169
Critical thinking skills	1	2	V119	170
Problem solving skills	1	2	V120	171
Knowledge of resources required to teach/learn	1	2	V121	172
Knowledge of subject matter	1	2	V122	173
Teaching skills	1	2	V123	174
Designing learning materials	1	2	V124	175
Research skills	1	2	V125	176
Involving community in school	1	2	V126	177
Administering and managing education activities	1	2	V127	178
Curriculum development	1	2	V128	179
Assessing and examining	1	2	V129	180
Other (Specify) _____			V130	182-183

20. If your answer to any of the above is **NO**, please give reasons as to why you say the **B.Ed (External)** does not help teachers acquire these competencies _____ _____ _____ _____ _____ _____ _____	V131 184-185 V132 186-187 V133 188-189 V134 190-191 V135 192-193
21. What do you think are the **strengths** of B.Ed. (External) with regard to the: **a. Content of the programmes** _____ _____ _____ _____ _____ **b. Practical Work** (in subjects like fine art, languages; and teaching practice) _____ _____ _____ _____ _____ **c. Management** _____ _____ _____ _____ _____ **d. Study materials provision** _____ _____ _____ _____ _____ **e. Student support** (provision of information, face to face sessions, student group meetings, library services, and counselling) _____ _____ _____ _____ _____ **f. Assessment and examinations** _____ _____ _____ _____ _____ _____	V136 194-195 V137 196-197 V138 198-199 V139 200-201 V140 202-203 V141 204-205 V142 206-207 V143 208-209 V144 210-211 V145 212-213 V146 214-215 V147 216-217 V148 218-219 V149 220-221 V150 222-223 V151 224-225 V152 226-227 V153 228-229

22. What do you think are the **weaknesses** of the B.Sc. and B.Ed. (External) with regard to the:

a. Content of the programmes

_____
_____
_____
_____
_____

V154 [ ][ ] 230-231
V155 [ ][ ] 232-233
V156 [ ][ ] 234-235

b. Practical Work (in subjects like fine art, languages; and teaching practice)

_____
_____
_____
_____
_____

V157 [ ][ ] 236-237
V158 [ ][ ] 238-239
V159 [ ][ ] 240-241

c. Management of the programme

_____
_____
_____
_____
_____

V160 [ ][ ] 242-243
V161 [ ][ ] 244-245
V162 [ ][ ] 246-247

d. Study materials provision

_____
_____
_____
_____
_____

V163 [ ][ ] 248-249
V164 [ ][ ] 250-251
V165 [ ][ ] 252-253

e. Student support (provision of information, face to face sessions, student group meetings, library services, and counselling)

_____
_____
_____
_____
_____

V166 [ ][ ] 254-255
V167 [ ][ ] 256-257
V168 [ ][ ] 258-259

f. Assessment and examinations

_____
_____
_____
_____
_____
_____

V169 [ ][ ] 260-261
V170 [ ][ ] 262-263
V171 [ ][ ] 264-265

Section E: Information Communication Technologies

23. Do you have access to any of the following Information Communication Technologies?

	Yes	No
Radio	1	2
Audio Cassette	1	2
Television (TV)	1	2

V172 [ ] 266
V173 [ ] 267
V174 [ ] 268

Video	1	2	V175	269
Computer	1	2	V176	270
Internet	1	2	V177	271

24. If you have access to the Information Communication Technologies, please indicate where you can access this technology.

		Yes	No		
Radio	Home	1	2	V178	272
	Friend's home	1	2	V179	273
	Relative's home	1	2	V180	274
	Office	1	2	V181	275
	Makerere University Centre	1	2	V182	276
	Other (specify) _____			V183	277-278
Audio Cassette	Home	1	2	V184	278
	Friend's home	1	2	V185	279
	Relative's home	1	2	V186	280
	Office	1	2	V187	281
	Makerere University Centre	1	2	V188	282
	Other (specify) _____			V189	283
Television (TV)	Home	1	2	V190	284
	Friend's home	1	2	V191	285
	Relative's home	1	2	V192	286
	Office	1	2	V193	287
	Makerere University Centre	1	2	V194	288
	Other (specify) _____			V195	289

		Yes	No
Computer	Home	1	2
	Friend's home	1	2
	Relative's home	1	2
	Office	1	2
	Makerere University Centre	1	2
	Other (specify) _____		

V196 290
V197 291
V198 292
V199 293
V200 294
V201 295

		Yes	No
Internet	Home	1	2
	Friend's home	1	2
	Relative's home	1	2
	Office	1	2
	Makerere University Centre	1	2
	Other (specify) _____		

V202 296
V203 297
V204 298
V205 299
V206 300
V207 301

25. Which of this Information Communication Technologies do you think should be used for the **B.Ed (External) Degree** programme activities?

	Yes	No
Radio	1	2
Audio Cassette	1	2
Television (TV)	1	2
Video	1	2
Computer	1	2
Internet	1	2
Print	1	2

V208 302
V209 303
V210 304
V211 305
V212 306
V213 307
V214 308

26. For which B.Ed (External) activities should the Information Communication Technologies you have chosen in No. 25 above be used? Write your response in the relevant space.

a. Radio

_____
_____
_____
_____
_____
_____

V215 309-310
V216 311-312
V217 313-314

b. Audio Cassette

_____
_____
_____
_____
_____
_____

V218 315-316
V219 317-318
V220 319-320

c. Television (TV)

_____
_____
_____
_____
_____
_____

V221 321-322
V222 323-324
V223 325-326

d. Video

_____
_____
_____
_____
_____

V224 327-328
V225 329-330
V226 331-332

e. Computer

_____
_____
_____
_____
_____
_____

V227 333-334
V228 335-336
V229 337-338

f. Internet

_____
_____
_____
_____
_____
_____

V230 339-340
V231 341-342
V232 343-344

g. Print

_____
_____
_____
_____
_____
_____

V233 345-346
V234 347-348
V235 349-350

27. How do you think the integration of Information Communication Technologies in the B.Ed (External) should be financed?

	Yes	No
From tuition fees being charged	1	2
From additional charges	1	2
From government subsidies	1	2
From Donor community	1	2
Local Community support	1	2
Other sources (specify) _____ _____		

V236 [ ] 351
V237 [ ] 352
V238 [ ] 353
V239 [ ] 354
V240 [ ] 355
V241 [ ][ ] 356

Section F: General Comments

28. Please give general comments you may have with regard to each of the following:

a) Distance Education for Teacher Education

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

V242 [ ][ ] 357-358
V243 [ ][ ] 359-360
V244 [ ][ ] 361-362
V245 [ ][ ] 363-364
V246 [ ][ ] 365-366
V247 [ ][ ] 367-368

b) Use of Information Communication Technologies for Distance Education Teacher Education programmes in Uganda

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

V254 [ ][ ] 1-382
V255 [ ][ ] 3-384
V256 [ ][ ] 5-386
V257 [ ][ ] 7-388
V258 [ ][ ] 9-390
V259 [ ][ ] 1-392

THANK YOU

APPENDIX IV
QUESTIONNAIRE FOR PROSPECTIVE B.ED (EXTERNAL) DEGREE PROGRAMME

20th October 2002

Dear Sir/Madam,

RESEARCH QUESTIONNAIRE

I am currently registered with the University of Pretoria for a PhD in Curriculum Instruction and Teaching. This questionnaire is part of a study that is meant to examine the distance education model being used in the provision of In-service Teacher Education for Secondary School Teachers in Uganda and to identify ways in which this model can be improved and Information Communication Technologies integrated.

As a prospective student of the External Degree programme, you must have a lot to contribute to this study; so please respond to the questions in the attached questionnaire as honestly as possible. Your responses will be treated with utmost confidentiality and will not be used against anyone.

Thank you for your cooperation and support.

Yours Sincerely

Jessica N. Aguti
PhD Student

QUESTIONNAIRE FOR PROSPECTIVE B.ED (EXTERNAL) DEGREE PROGRAMME

Instructions:
For each question, please tick (✔) or fill in the blanks as necessary

	For official use
1. Respondent number	V1 ☐☐☐ 1-3
Section A: Personal Information	
2. Age _____Years	V2 ☐☐ 4-5
3. Gender Female 1 Male 2	V3 ☐ 6
4. Work Place Pre-primary school 1 Primary School 2 Secondary school 3 Primary Teachers' College 4 Education office 5 Others (specify) _____	V4 ☐☐ 7-8 V5 ☐☐ 9-10
5. Position Head Teacher 1 Head of Department 2 Teacher 3 Inspector of Schools 4 Education officer 5 Assistant Education officer 6 Other (Specify) _____ _____	V6 ☐☐ 11-12 V7 ☐☐ 13-14

Section B: Potential Of Distance Education

6. Do you think Distance Education has the potential to meet educational needs in Uganda? **Yes** **No**

1	2

V8 [ ] 15

7. If **Yes**, which of these fields of specialisation do you think could be served by distance education?

	Yes	No	
Education	1	2	V9 [ ] 16
Law	1	2	V10 [ ] 17
Social Sciences	1	2	V11 [ ] 18
Arts Courses	1	2	V12 [ ] 19
Science Courses	1	2	V13 [ ] 20
Engineering	1	2	V14 [ ] 21
Medicine	1	2	V15 [ ] 22
Other (Specify) _____			V16 [ ][ ] 23

8. If your answer to any of the items in question 7 above was **NO**, why do you think distance education cannot be used to offer those courses?

_____
_____
_____
_____
_____
_____
_____
_____

V17 [ ][ ] -25

V18 [ ][ ] -27

V19 [ ][ ] -29

9. Do you think government needs to come up with a clear policy on Distance and Open Learning? **Yes** **No**

1	2

V20 [ ] 30

10. If your answer to question 9 was **Yes**, which issues do you think should be highlighted in such a policy?

_____
_____
_____
_____
_____
_____

V21 [ ][ ] -32

V22 [ ][ ] -34

V23 [ ][ ] -36

11. In your opinion, do the following factors impact distance education in Uganda?

	Yes	No		
Expertise in distance education	1	2	V24	38-39
Government policy on distance education	1	2	V25	40-41
Institutional policies on distance education	1	2	V26	42-43
Finance	1	2	V27	44-45
Access to technology in the country	1	2	V28	46-47
Management and administrative systems	1	2	V29	48-49
Attitudes towards distance education	1	2	V30	50-51
Other (Specify) _____			V31	52-53

Section C: Teacher Education by Distance Programmes

12. Have you participated in any of the following Teacher Education Programmes?

	Yes	No		
MITEP	1	2	V32	54
NITEP	1	2	V33	55
TDMS Headteacher Training programme	1	2	V34	56
TDMS Grade III Teachers' Course	1	2	V35	57
TDMS Outreach Tutor Training	1	2	V36	58
Kyambogo University Diploma In Primary Education	1	2	V37	59
Other (Specify) _____			V38	60-61

If your answer to all the above was NO, go to question 17

13. In what capacity did you participate in these programmes?

		Yes	No		
MITEP	Student	1	2	V39	62
	Tutor	1	2	V40	63
	Manager	1	2	V41	64
	Trainer	1	2	V42	65
	Writer	1	2	V43	66
		Yes	**No**		
NITEP	Student	1	2	V44	67
	Tutor	1	2	V45	68
	Manager	1	2	V46	69
	Trainer	1	2	V47	70
	Writer	1	2	V48	71
		Yes	**No**		
TDMS Headteacher Training programme	Student	1	2	V49	72
	Tutor	1	2	V50	73
	Manager	1	2	V51	74
	Trainer	1	2	V52	75
	Writer	1	2	V53	76
		Yes	**No**		
TDMS Grade III Teachers' Course	Student	1	2	V54	77
	Tutor	1	2	V55	78
	Manager	1	2	V56	79
	Trainer	1	2	V57	80
	Writer	1	2	V58	81

		Yes	No		
Kyambogo University Diploma in Pr. Ed.	Student	1	2	V59	82
	Tutor	1	2	V60	83
	Manager	1	2	V61	84
	Trainer	1	2	V62	85
	Writer	1	2	V63	86

		Yes	No		
Other (Specify) _____	Student	1	2	V64	87
	Tutor	1	2	V65	88
	Manager	1	2	V66	89
	Trainer	1	2	V67	90
	Writer	1	2	V68	91

14. List below the **strengths** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

V69		92-93
V70		94-95
V71		96-97
V72		98-99
V73		100-101

15. List below the **weaknesses** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

V74		102-103
V75		104-105
V76		106-107
V77		108-109
V78		110-111

16. What do you think could be done to improve these programmes and enhance their:

a. Management

_____
_____
_____
_____
_____

V79 ☐☐ 112-113
V80 ☐☐ 114-115
V81 ☐☐ 116-117

b. Study materials provision

_____
_____
_____
_____
_____

V82 ☐☐ 118-119
V83 ☐☐ 120-121
V84 ☐☐ 122-123

c. Student support (provision of information, face to face sessions, student group meetings, library services, and counselling)

_____
_____
_____
_____
_____

V85 ☐☐ 123-124
V86 ☐☐ 125-126
V87 ☐☐ 127-128

d. Assessment and examinations

_____
_____
_____
_____
_____

V88 ☐☐ 129-130
V89 ☐☐ 131-132
V90 ☐☐ 133-134

Section D: Bachelor of Education (B.Ed) External

17. If given opportunity, would you join the Makerere University **B.Ed (External)** Degree Programme?

Yes ☐ **No** ☐

V91 ☐ 136

18. If your answer to question 17 was **Yes,** why would you join the Makerere University **B.Ed (External)** Degree Programme?

To improve my teaching skills	1
To keep up-to-date with new methods of teaching	2
To gain more knowledge on the teaching subjects	3
To obtain promotion	4
To ensure job security	5

V92 ☐ 137
V93 ☐ 138
V94 ☐ 139
V95 ☐ 140
V96 ☐ 141

To gain higher qualification | 6 Other (Specify) _____	V97 [ ] 142 V98 [ ][ ] 143-144
19. If your answer to question 17 was **NO,** please explain why you would not join the **B.Ed (External).** _____ _____ _____ _____ _____ _____ _____ _____	V99 [ ][ ] 145-146 V100 [ ][ ] 147-148 V101 [ ][ ] 149-150
20. List here below competencies that you think are important to teachers? _____ _____ _____ _____ _____ _____ _____ _____ _____	V102 [ ][ ] 151-152 V103 [ ][ ] 153-154 V104 [ ][ ] 155-156 V105 [ ][ ] 157-158 V106 [ ][ ] 159-160
21. a) Do you think the **B.Ed (External)** of Makerere University would help you acquire these competencies? **Yes** 1 **No** 2	V107 [ ] 161
b) Explain your answer _____ _____ _____ _____ _____ _____ _____ _____	V108 [ ][ ] 162-163 V109 [ ][ ] 164-165 V110 [ ][ ] 166-167 V111 [ ][ ] 168-169
22. Do you know any teachers who are enrolled on the Makerere **B.Ed (External)** Degree programme? **Yes** 1 **No** 2	V114 [ ] 170
23. If you answer to question 22 is **Yes,** please indicate some of the problems you think these students are facing. _____ _____ _____ _____	V115 [ ][ ] 171-172 V116 [ ][ ] 173-174

_____
_____
_____
_____

V117 [ ][ ] 175-176

24. How do you think, these students can be helped in their studies as **B.Ed (External)** students?

_____
_____
_____
_____
_____
_____
_____

V118 [ ][ ] 177-178
V119 [ ][ ] 179-180
V120 [ ][ ] 181-182

Section E: Information Communication Technology

25. Do you have access to any of the following Information Communication Technologies?

	Yes	No	
Radio	1	2	V121 [ ] 183
Audio Cassette	1	2	V122 [ ] 184
Television (TV)	1	2	V123 [ ] 185
Video	1	2	V124 [ ] 186
Computer	1	2	V125 [ ] 187
Internet	1	2	V126 [ ] 188

26. If you have access to the Information Communication Technologies, please indicate where you can access this technology.

		Yes	No	
Radio	Home	1	2	V127 [ ] 189
	Friend's home	1	2	V128 [ ] 190
	Relative's home	1	2	V129 [ ] 191
	Office	1	2	V130 [ ] 192
	Makerere University Centre	1	2	V131 [ ] 193
	Other (specify) _____			V132 [ ][ ] 194-195

		Yes	No	
Audio Cassette	Home	1	2	V133 196
	Friend's home	1	2	V134 197
	Relative's home	1	2	V135 198
	Office	1	2	V136 199
	Makerere University Centre	1	2	V137 200
	Other (specify) _____			V138 201-202

		Yes	No	
Television (TV)	Home	1	2	V139 203
	Friend's home	1	2	V140 204
	Relative's home	1	2	V141 205
	Office	1	2	V142 206
	Makerere University Centre	1	2	V143 207
	Other (specify) _____			V144 208-209

		Yes	No	
Computer	Home	1	2	V145 210
	Friend's home	1	2	V146 211
	Relative's home	1	2	V147 212
	Office	1	2	V148 213
	Makerere University Centre	1	2	V149 214
	Other (specify) _____			V150 215-216

		Yes	No	
Internet	Home	1	2	V151 ☐ 217
	Friend's home	1	2	V152 ☐ 218
	Relative's home	1	2	V153 ☐ 219
	Office	1	2	V154 ☐ 220
	Makerere University Centre	1	2	V155 ☐ 221
	Other (specify) _____			V156 ☐☐ 222-223

27. Which of this Information Communication Technologies do you think should be used for **B.Ed (External) Degree** programme activities?

	Yes	No	
Radio	1	2	V157 ☐ 224
Audio Cassette	1	2	V158 ☐ 225
Television (TV)	1	2	V159 ☐ 226
Video	1	2	V160 ☐ 227
Computer	1	2	V161 ☐ 228
Internet	1	2	V162 ☐ 229
Print	1	2	V163 ☐ 230

28. How should the Information Communication Technologies you have chosen in No. 24 above be used? Write your response in the relevant space.

a. Radio

_____
_____
_____
_____
_____
_____

V164 ☐☐ 231-232
V165 ☐☐ 233-234
V166 ☐☐ 235-236

b. Audio Cassette

_____
_____
_____
_____
_____
_____

V167 ☐☐ 237-238
V168 ☐☐ 239240
V169 ☐☐ 241-242

c. Television (TV)

_____
_____
_____
_____
_____
_____

d. Video

_____
_____
_____
_____
_____

e. Computers

_____
_____
_____
_____
_____

f. Internet

_____
_____
_____
_____
_____

V170 [ ][ ] 243-244
V171 [ ][ ] 245-246
V172 [ ][ ] 247-248

V173 [ ][ ] 249-250
V174 [ ][ ] 251-252
V175 [ ][ ] 253-254

V176 [ ][ ] 255-256
V177 [ ][ ] 257-258
V178 [ ][ ] 259-260

V176 [ ][ ] 261-262
V177 [ ][ ] 263-264
V178 [ ][ ] 265-266

29. How do you think the integration of Information Communication Technologies in the **B.Ed (External)** should be financed?

	Yes	**No**
From tuition fees being charged	1	2
From additional charges	1	2
From government subsidies	1	2
From Donor community	1	2
Local Community support	1	2
Other sources (specify) _____ _____		

V192 [ ] 267
V193 [ ] 268
V194 [ ] 269
V195 [ ] 270
V196 [ ] 271
V197 [ ][ ] 272-273

Section F: General Comments	
30. Please give general comments you may have with regard to each of the following:	
a) Distance Education for Teacher Education _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	V198 [ ][ ] 274-275 V199 [ ][ ] 276-277 V200 [ ][ ] 278-279 V201 [ ][ ] 280-281 V202 [ ][ ] 282-283
b) Use of Information Communication Technologies for Distance Education Teacher Education programmes in Uganda _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	V203 [ ][ ] 284-285 V204 [ ][ ] 286-287 V205 [ ][ ] 288-289 V206 [ ][ ] 290-291 V207 [ ][ ] 292-293 V208 [ ][ ] 294-295

THANK YOU

APPENDIX V
QUESTIONNAIRE FOR DISTANCE EDUCATION STUDENTS [B.SC]

20th October 2002

Dear Sir/Madam,

RESEARCH QUESTIONNAIRE

I am currently registered with the University of Pretoria for a PhD in Curriculum Instruction and Teaching. This questionnaire is part of a study that is meant to examine the distance education model being used in the provision of In-service Teacher Education for Secondary School Teachers in Uganda and to identify ways in which this model can be improved and Information Communication Technologies integrated.

As a student on the External Degree programme, you must have a lot to contribute to this study; so please respond to the questions in the attached questionnaire as honestly as possible. Your responses will be treated with utmost confidentiality and will not be used against anyone.

Thank you for your cooperation and support.

Yours Sincerely

Jessica N. Aguti
PhD Student

QUESTIONNAIRE FOR DISTANCE EDUCATION STUDENTS [B.SC]

Instructions:

For each question, please tick (✓) or fill in the blanks as necessary

For official use

1. Respondent number — V1 ☐☐☐ 1-3

Section A: Personal Information

2. Age _____Years — V2 ☐☐ 4-5

3. Gender

Female	1
Male	2

V3 ☐ 6

4. Work Place

Pre-primary school	1
Primary School	2
Secondary school	3
Primary Teachers' College	4
Education office	5
Others (specify) _____	

V4 ☐☐ 7-8

V5 ☐☐ 9-10

5. Position

Head Teacher	1
Head of Department	2
Teacher	3
Inspector of Schools	4
Education officer	5
Assistant Education officer	6
Other (Specify) _____	

V6 ☐☐ 11-12

V7 ☐☐ 13-14

Section B: Potential Of Distance Education

6. Do you think Distance Education has the potential to meet educational needs in Uganda?

Yes	**No**
1	2

V8 ☐ 15

7. If **Yes**, which of these fields of specialisation do you think could be served by distance education?

	Yes	No
Education	1	2
Law	1	2
Social Sciences	1	2
Arts Courses	1	2
Science Courses	1	2
Engineering	1	2
Medicine	1	2
Other (Specify) _____		

V9 ☐ 16
V10 ☐ 17
V11 ☐ 18
V12 ☐ 19
V13 ☐ 20
V14 ☐ 21
V15 ☐ 22
V16 ☐☐ 23-24

8. If your answer to any of the items in question 7 above was **NO**, why do you think distance education cannot be used to offer those courses?

_____
_____
_____
_____
_____
_____

V17 ☐☐ 25-26
V18 ☐☐ 27-28
V19 ☐☐ 29-30

9. Do you think government needs to come up with a clear policy on Distance and Open Learning?

Yes	No
1	2

V20 ☐ 31

10. If your answer to question 9 was yes, which issues do you think should be highlighted in such a policy?

_____
_____
_____
_____
_____
_____

V21 ☐☐ 32-33
V22 ☐☐ 34-35
V23 ☐☐ 36-37

11. In your opinion, do the following factors impact on distance education in Uganda?

	Yes	No
Expertise in distance education	1	2
Government policy on distance education	1	2
Institutional policies on distance education	1	2

V24 ☐☐ 38-39
V25 ☐☐ 40-41
V26 ☐☐ 42-43

Finance	1	2
Access to technology in the country	1	2
Management and administrative systems	1	2
Attitudes towards distance education	1	2
Other (Specify) _____ _____		

V27 44-45
V28 46-47
V29 48-49
V30 50-51
V31 52-53

Section C: Teacher Education by Distance Programmes

12. Have you participated in any of the following Distance Education Teacher Training Programmes?

	Yes	No
MITEP	1	2
NITEP	1	2
TDMS Headteacher Training programme	1	2
TDMS Grade III Teachers' Course	1	2
TDMS Outreach Tutor Training	1	2
Kyambogo University Diploma In Primary Education	1	2
Makerere University B.Sc. (External)	1	2
Other (Specify) _____ _____		

V32 54
V33 55
V34 56
V35 57
V36 58
V37 59
V38 60
V39 61

13. In what capacity did you participate in these programmes?

		Yes	No
MITEP	Student	1	2
	Tutor	1	2
	Manager	1	2
	Trainer	1	2
	Writer	1	2

V40 62
V41 63
V42 64
V43 65
V44 66

		Yes	No		
NITEP	Student	1	2	V45	67
	Tutor	1	2	V46	68
	Manager	1	2	V47	69
	Trainer	1	2	V48	70
	Writer	1	2	V49	71

		Yes	No		
TDMS Headteacher Training programme	Student	1	2	V50	72
	Tutor	1	2	V51	73
	Manager	1	2	V52	74
	Trainer	1	2	V53	75
	Writer	1	2	V54	76

		Yes	No		
TDMS Grade III Teachers' Course	Student	1	2	V55	77
	Tutor	1	2	V56	78
	Manager	1	2	V57	79
	Trainer	1	2	V58	80
	Writer	1	2	V59	81

		Yes	No		
Kyambogo University Diploma in Pr. Ed.	Student	1	2	V60	82
	Tutor	1	2	V61	83
	Manager	1	2	V62	84
	Trainer	1	2	V63	85
	Writer	1	2	V64	86

		Yes	No		
Makerere University	Student	1	2	V65	87
	Tutor	1	2	V66	88
	Manager	1	2	V67	89
	Trainer	1	2	V68	90
	Writer	1	2	V69	91
		Yes	**No**		
Other (Specify) _____	Student	1	2	V70	92
	Tutor	1	2	V71	93
	Manager	1	2	V72	94
	Trainer	1	2	V73	95
	Writer	1	2	V74	96

14. List below the **strengths** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____

V75		97-98
V76		99-100
V77		101-102
V78		103-104
V79		105-106

15. List below the **weaknesses** of the programmes you have participated in.

_____
_____
_____
_____
_____
_____
_____
_____

V80		107-108
V81		109-110
V82		111-112
V83		113-114
V84		115-116

16. What do you think could be done to improve these programmes and enhance their:

a. Management

_____
_____
_____

V85		117-118
V86		119-120

_____ _____ **b. Study materials provision** _____ _____ _____ _____ _____ **c. Student Support** (provision of information, face to face sessions, student group meetings, library services, and counselling) _____ _____ _____ _____ _____ **d. Assessment and examinations** _____ _____ _____ _____ _____	V87 [ ][ ] 121-122 V88 [ ][ ] 123-124 V89 [ ][ ] 125-126 V90 [ ][ ] 127-128 V91 [ ][ ] 129-130 V92 [ ][ ] 132-133 V93 [ ][ ] 134-135 V94 [ ][ ] 136-137 V95 [ ][ ] 138-139 V96 [ ][ ] 140-141
Section D: Bachelor of Education (B.Sc.) External	
17. Why did you join the **B.Sc. (External)** Degree Programme? To improve my teaching skills 1 To keep up-to-date with new methods of teaching 2 To gain more knowledge on the teaching subjects 3 To obtain promotion 4 To ensure job security 5 To gain higher qualification 6 Other (Specify) _____	V97 [ ] 142-143 V98 [ ] 143-144 V99 [ ] 145-146 V100 [ ] 147-148 V101 [ ] 149-150 V103 [ ] 151-152 V104 [ ][ ] 153-154
18. Do you think the following competencies are important to teachers? Communication skills 1 2 Critical thinking skills 1 2 Problem solving skills 1 2	V105 [ ] 155 V106 [ ] 156 V107 [ ] 157

Knowledge of resources required to teach/learn	1	2	V108	158
Knowledge of subject matter	1	2	V109	159
Teaching skills	1	2	V110	160
Designing learning materials	1	2	V111	161
Research skills	1	2	V112	162
Involving the community in the school	1	2	V113	163
Administering and managing education activities	1	2	V114	164
Curriculum development			V115	165
Assessing and examining			V116	166
Others _____			V117	167-168

19. Do you think the **B.Ed (External)** of Makerere University helps teachers acquire these competencies? **Yes** **No**

Communication skills	1	2	V118	169
Critical thinking skills	1	2	V119	170
Problem solving skills	1	2	V120	171
Knowledge of resources required to teach/learn	1	2	V121	172
Knowledge of subject matter	1	2	V122	173
Teaching skills	1	2	V123	174
Designing learning materials	1	2	V124	175
Research skills	1	2	V125	176
Involving community in school	1	2	V126	177
Administering and managing education activities	1	2	V127	178
Curriculum development	1	2	V128	179
Assessing and examining	1	2	V129	180
Other (Specify) _____			V130	182-183

20. If your answer to any of the above is **NO**, please give reasons as to why you say the **B.Ed (External)** does not help teachers acquire these competencies _____ _____ _____ _____ _____ _____ _____	V131	184-185
	V132	186-187
	V133	188-189
	V134	190-191
	V135	192-193
21. What do you think are the **strengths** of the B.Sc. and B.Ed. (External) with regard to the: **a. Content of the programmes** _____ _____ _____ _____ _____	V136	194-195
	V137	196-197
	V138	198-199
b. Practical Work (in the science subjects) _____ _____ _____ _____ _____	V139	200-201
	V140	202-203
	V141	204-205
c. Management _____ _____ _____ _____ _____	V142	206-207
	V143	208-209
	V144	210-211
d. Study materials provision _____ _____ _____ _____ _____	V145	212-213
	V146	214-215
e. Student support (provision of information, face to face sessions, student group meetings, library services, and counselling) _____ _____ _____ _____ _____	V147	216-217
	V148	218-219
	V149	220-221
	V150	222-223
f. Assessment and examinations _____ _____ _____ _____ _____ _____	V151	224-225
	V152	226-227
	V153	228-229

22. What do you think are the **weaknesses** of the B.Sc. and B.Ed. (External) with regard to the:

a. Content of the programmes

_____
_____
_____
_____
_____

V154 230-231
V155 232-233
V156 234-235

b. Practical Work (in the science subjects)

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V157 236-237
V158 238-239
V159 240-241

c. Management of the programme

_____
_____
_____
_____
_____

V160 242-243
V161 244-245
V162 246-247

d. Study materials provision

_____
_____
_____
_____
_____

V163 248-249
V164 250-251
V165 252-253

e. Student support (provision of information, face to face sessions, student group meetings, library services, and counselling)

_____
_____
_____
_____
_____

V166 254-255
V167 256-257
V168 258-259

f. Assessment and examinations

_____
_____
_____
_____
_____

V169 260-261
V170 262-263
V171 264-265

Section E: Information Communication Technologies

23. Do you have access to any of the following Information Communication Technologies?

	Yes	**No**
Radio	1	2
Audio Cassette	1	2
Television (TV)	1	2
Video	1	2

V172 266
V173 267
V174 268
V175 269

Computer	1	2	V176 270
Internet	1	2	V177 271

24. If you have access to the Information Communication Technologies, please indicate where you can access this technology.

		Yes	No	
Radio	Home	1	2	V178 272
	Friend's home	1	2	V179 273
	Relative's home	1	2	V180 274
	Office	1	2	V181 275
	Makerere University Centre	1	2	V182 276
	Other (specify) _____			V183 277-278

		Yes	No	
Audio Cassette	Home	1	2	V184 278
	Friend's home	1	2	V185 279
	Relative's home	1	2	V186 280
	Office	1	2	V187 281
	Makerere University Centre	1	2	V188 282
	Other (specify) _____			V189 283

		Yes	No	
Television (TV)	Home	1	2	V190 284
	Friend's home	1	2	V191 285
	Relative's home	1	2	V192 286
	Office	1	2	V193 287
	Makerere University Centre	1	2	V194 288
	Other (specify) _____			V195 289

.

		Yes	No
Computer	Home	1	2
	Friend's home	1	2
	Relative's home	1	2
	Office	1	2
	Makerere University Centre	1	2
	Other (specify) _____		

V196 [ ] 290
V197 [ ] 291
V198 [ ] 292
V199 [ ] 293
V200 [ ] 294
V201 [ ][ ] 295

		Yes	No
Internet	Home	1	2
	Friend's home	1	2
	Relative's home	1	2
	Office	1	2
	Makerere University Centre	1	2
	Other (specify) _____		

V202 [ ] 296
V203 [ ] 297
V204 [ ] 298
V205 [ ] 299
V206 [ ] 300
V207 [ ][ ] 301

25. Which of this Information Communication Technologies do you think should be used for the **B.Ed and B.Sc. (External) Degree** programme activities?

	Yes	No
Radio	1	2
Audio Cassette	1	2
Television (TV)	1	2
Video	1	2
Computer	1	2
Internet	1	2
Print	1	2

V208 [ ] 302
V209 [ ] 303
V210 [ ] 304
V211 [ ] 305
V212 [ ] 306
V213 [ ] 307
V214 [ ] 308

26. For which B.Ed and B.Sc (External) activities should the Information Communication Technologies you have chosen in No. 24 above be used? Write your response in the relevant space.

a. Radio

V215 309-310
V216 311-312
V217 313-314

b. Audio Cassette

V218 315-316
V219 317-318
V220 319-320

c. Television (TV)

V221 321-322
V222 323-324
V223 325-326

d. Video

V224 327-328
V225 329-330
V226 331-332

e. Computer

V227 333-334
V228 335-336
V229 337-338

f. Internet

V230 339-340
V231 341-342
V232 343-344

g. Print

V233 345-346
V234 347-348
V235 349-350

27. How do you think the integration of Information Communication Technologies in the B.Ed and B.Sc (External) should be financed?

	Yes	No
From tuition fees being charged	1	2
From additional charges	1	2
From government subsidies	1	2
From Donor community	1	2
Local Community support	1	2
Other sources (specify) _____ _____		

V236 [ ] 351
V237 [ ] 352
V238 [ ] 353
V239 [ ] 354
V240 [ ] 355
V241 [ ][ ] 356

Section F: General Comments

28. Please give general comments you may have with regard to each of the following:

a) Distance Education for Teacher Education

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V242 [ ][ ] 357-358
V243 [ ][ ] 359-360
V244 [ ][ ] 361-362
V245 [ ][ ] 363-364
V246 [ ][ ] 365-366
V247 [ ][ ] 367-368

b) Distance Education for Science Courses

_____
_____
_____
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_____

V248 [ ][ ] 9-370
V249 [ ][ ] 1-372
V250 [ ][ ] 3-374
V251 [ ][ ] 375-376
V252 [ ][ ] 377-378
V253 [ ][ ] 379-380

c) Use of Information Communication Technologies for Distance Education Teacher Education programmes in Uganda

_____
_____
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V254			381-382
V255			383-384
V256			385-386
V257			387-388
V258			389-390
V259			391-392

THANK YOU

APPENDIX VI
INTERVIEW SCHEDULE FOR POLICY MAKERS, MINISTRY OF EDUCATION OFFICIALS, DISTRICT EDUCATION OFFICIALS AND TEACHER EDUCATION MANAGERS

For official use only

1. Respondent Number	V1 ☐☐☐ -3
Section A: Personal Information	
2. Gender Female ☐ Male ☐	V2 ☐ 4
3. Institution _____	V3 ☐ 5
4. Position Commissioner 1 Assistant Commissioner 2 Education officer 3 Assistant Education Officer 4 Inspector of Schools 5 Assistant Inspector of Schools 6 Dean/Director 7 Head of Department 8 Other (Specify) _____	V4 ☐☐ 6-7
Section B: Potential of Distance Education	
5. Do you think Distance Education has potential to meet the educational needs in Uganda? **Yes** 1 **No** 2	V5 ☐ 8
6. If **Yes,** which of these courses do you think could be offered by distance education?	

	Yes	No		
Education	1	2	V6 ☐	9
Law	1	2	V7 ☐	10
Social Sciences	1	2	V8 ☐	11
Arts Courses	1	2	V9 ☐	12
Science Courses	1	2	V10 ☐	13
Engineering	1	2	V11 ☐	14
Medicine	1	2	V12 ☐	15

Other (specify)
_____
_____

V13 [ ][ ] 16-17

7. If your answer to any of the items in question 5 above was **NO,** why do you think distance education cannot be used to offer those courses?

_____
_____
_____
_____
_____

V14 [ ][ ] 18-19
V15 [ ][ ] 20-21
V16 [ ][ ] 22-23

8. Do you think government needs to come up with a clear policy on Distance and Open Learning?

Yes	**No**
1	2

V17 [ ] 24

9. Which issues do you think should be highlighted in this policy?

_____
_____
_____
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V18 [ ][ ] 25-26
V19 [ ][ ] 27-28
V20 [ ][ ] 29-30

10. In your opinion, what factors do you think are impacting on distance education in Uganda?

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_____
_____

V21 [ ][ ] 31-32
V22 [ ][ ] 33-34
V23 [ ][ ] 35-36

Section C: Teacher Education by Distance Programmes

11. Have you participated in any of the following Teacher Education Programmes? **Yes** **No**

MITEP	1	2
NITEP	1	2
TDMS Headteacher Training programme	1	2
TDMS Grade III Teachers' Course	1	2
TDMS Outreach Tutor Training	1	2

V24 [ ] 37
V25 [ ] 38
V26 [ ] 39
V27 [ ] 40
V28 [ ] 41

Kyambogo University Diploma in Primary Education	1	2
Makerere University B.Ed (External)	1	2
Other (specify) _____		

V29 [ ] 42
V30 [ ] 43
V31 [ ] 44-45

12. In what capacity did you participate in these programmes?

		Yes	No		
MITEP	Student	1	2	V32 [ ]	46
	Tutor	1	2	V33 [ ]	47
	Manager	1	2	V34 [ ]	48
	Trainer	1	2	V35 [ ]	49
	Writer	1	2	V36 [ ]	50
	Reviewer	1	2	V37 [ ]	51

		Yes	No		
NITEP	Student	1	2	V38 [ ]	52
	Tutor	1	2	V39 [ ]	53
	Manager	1	2	V40 [ ]	54
	Trainer	1	2	V41 [ ]	55
	Writer	1	2	V42 [ ]	56
	Reviewer	1	2	V43 [ ]	57

		Yes	No		
TDMS Headteacher Training Programmes	Student	1	2	V44 [ ]	58
	Tutor	1	2	V45 [ ]	59
	Manager	1	2	V46 [ ]	60
	Trainer	1	2	V47 [ ]	61
	Writer	1	2	V48 [ ]	62
	Reviewer	1	2	V49 [ ]	63

		Yes	No			
TDMS Grade III Teachers' Course	Student	1	2	V50		64
	Tutor	1	2	V51		65
	Manager	1	2	V52		66
	Trainer	1	2	V53		67
	Writer	1	2	V54		68
	Reviewer	1	2	V55		69
		Yes	**No**			
Kyambogo University Dilpoma in Pr. Education	Student	1	2	V56		70
	Tutor	1	2	V57		71
	Manager	1	2	V58		72
	Trainer	1	2	V59		73
	Writer	1	2	V60		74
	Reviewer	1	2	V61		75
		Yes	**No**			
Makerere University	Student	1	2	V62		76
	Tutor	1	2	V63		77
	Manager	1	2	V64		78
	Trainer	1	2	V65		79
	Writer	1	2	V66		80
	Reviewer	1	2	V67		81
		Yes	**No**			
Other (specify) _____	Student	1	2	V68		82
	Tutor	1	2	V69		83
	Manager	1	2	V70		84
	Trainer	1	2	V71		85
	Writer	1	2	V72		86
	Reviewer	1	2	V73		87

13. What were the strengths of the programmes you participated in? _____ _____ _____ _____ _____ _____ _____ _____ _____	V74		88-89
	V75		90-91
	V76		92-93
	V77		94-95
	V78		96-97
14. What were the weaknesses of these programmes? _____ _____ _____ _____ _____ _____ _____ _____ _____	V79		98-99
	V80		100-101
	V81		102-103
	V82		104-105
	V83		106-107
15. What do you think could be done to improve these programmes and enhance their: **a) Management** _____ _____ _____ _____ _____	V84		108-109
	V85		110-111
	V86		112-113
b) Study materials development and provision _____ _____ _____ _____ _____	V87		114-115
	V88		116-117
	V89		118-119
c) Students support in the programme (provision of information, face to face sessions, student group meetings, library services, and counselling) _____ _____ _____ _____ _____	V90		120-121
	V91		122-123
	V92		124-125
d) Student assessment and examination _____ _____ _____ _____ _____	V93		126-127
	V94		128-129
	V95		130-131

16. Some of the subjects like Art and Crafts, Sciences and Languages require practical work. How do you think distance education programmes can cater for this? _____ _____ _____ _____ _____	V96	132-133
	V97	134-135
	V98	136-137
17. Teaching/school practice is an important element in Teacher Education. How do you think this can be catered for in distance education In-service Teacher Education programmes? _____ _____ _____ _____ _____	V99	138-139
	V100	140-141
	V101	142-143
	V102	144-145
18. It is important that quality assurance mechanisms are put in place to ensure that the distance education Teacher Education Programmes in the country are of high quality. Please suggest strategies that you think should be adopted to ensure that this is achieved. _____ _____ _____ _____ _____	V103	146-147
	V104	148-149
	V105	150-151
	V106	152-153
19. If teachers already in service are to enroll in these distance education Teacher Education programmes either for retraining or for upgrading, suggest ways in which these programmes should be run to cater for the teachers' and schools' needs and programmes. _____ _____ _____ _____ _____ _____ _____	V107	154-155
	V108	156-157
	V109	158-159
	V110	160-161
Section D: Bachelor of Education (B.Ed) External		
20. What competencies do you think are important to teachers? _____ _____ _____ _____ _____ _____ _____	V111	162-163
	V112	164-165
	V113	166-167
	V114	168-169
	V115	170- 171

21. a) Do you think the **B.Ed** (External) of Makerere University helps teachers acquire these competencies?

Yes	**No**
1	2

V116 [ ] 172

b) Explain your answer

_____
_____
_____
_____
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_____
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_____
_____

V117 [ ][ ] 173-174
V118 [ ][ ] 175-176
V119 [ ][ ] 177-178
V120 [ ][ ] 179-180
V121 [ ][ ] 181-182
V122 [ ][ ] 183-184

22. What do you think are the **strengths** of the B.Ed (External) with regard to its:

a) Content of the programme

_____
_____
_____
_____
_____

V123 [ ][ ] 185-186
V124 [ ][ ] 187-188
V125 [ ][ ] 189-190

b) Management

_____
_____
_____
_____
_____

V126 [ ][ ] 191-192
V127 [ ][ ] 193-194
V128 [ ][ ] 195-196

c) Study materials development and provision

_____
_____
_____
_____
_____

V129 [ ][ ] 197-198
V130 [ ][ ] 199-200
V131 [ ][ ] 201-202

d) **Student support in the programme** (provision of information, face to face sessions, student group meetings, library services, and counselling)

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V132 [ ][ ] 203-204
V133 [ ][ ] 205-206
V134 [ ][ ] 207-208

e) Student assessment and examinations

_____
_____
_____
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V135 [ ][ ] 209-210
V136 [ ][ ] 211-212
V137 [ ][ ] 213-214

23. What do you think are the **weaknesses** of the B.Ed (External) with regard to its:	V138			215-216
a) Content of the programme	V139			217-218
_____	V140			219-220
_____				
_____				
_____				
_____				
b) Management	V141			221-222
_____	V142			223-224
_____				
_____	V143			225-226
_____				
c) Study materials development and provision	V144			227-228
_____				
_____	V145			229-230
_____				
_____	V146			231-232
d) **Student support in the programme** (provision of information, face to face sessions, student group meetings, library services, and counselling)	V147			233-234
_____	V148			235-236
_____				
_____	V149			237-238
_____				
e) Student assessment and examinations	V150			239-240
_____				
_____	V151			241-242
_____				
_____	V152			243-244
Section E: Information Communication Technology				
24. What is your opinion regarding the use of Information Communication Technologies for teaching and learning in distance education Teacher Education programmes in Uganda? NOTE: **Throughout this questionnaire, Information communication Technology will be used to include: audiocassettes, computers, Internet and www, printed materials, radio, telephone, TV broadcasts, and video cassettes**	V153			245-246
_____	V154			247-248
_____				
_____	V155			249-250
_____				
_____	V156			251-252
_____				
_____	V157			253-254
_____				
_____	V158			255-256
_____				

25. What do you think are the prerequisites that must be put in place for this technology to be appropriately used in Uganda?

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V159		257-258
V160		259-260
V161		261-262
V162		263-264
V163		265-266
V164		267-268

26. Suggest ways in which the Information Communication Technologies can be made more accessible to the students.

_____
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_____

V165		269-270
V166		271-272
V167		273-274
V168		275-276
V169		277-278
V170		279-280

27. How do think the integration of Information communication Technology in the B.Ed (External) should be financed?

	Yes	No
From tuition fees being charged	1	2
From additional charges	1	2
From government subsidies	1	2
From donor community	1	2
Through local community support	1	2
Other sources (specify) _____ _____		

V171		281
V172		282
V173		283
V174		284
V175		285
V176		286-287

Section F: General Comments	
28. Please give general comments you may have with regard to each of the following:	
a) Distance education for Teacher Education _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	V177 [ ][ ] 288-289 V178 [ ][ ] 290-291 V179 [ ][ ] 292-293 V180 [ ][ ] 294-295 V181 [ ][ ] 296-297 V182 [ ][ ] 298-299
b) Use of Information communication Technologies for Distance Education Teacher Education programmes in Uganda _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	V183 [ ][ ] 300-301 V184 [ ][ ] 302-303 V185 [ ][ ] 304-305 V186 [ ][ ] 306-307 V187 [ ][ ] 308-309 V188 [ ][ ] 310-311
c) Potential of Distance Education _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	V165 [ ][ ] 312-313 V166 [ ][ ] 314-315 V167 [ ][ ] 316-317 V168 [ ][ ] 318-319 V169 [ ][ ] 320-321 V170 [ ][ ] 322-323

THANK YOU

APPENDIX VII: RESEARCH QUESTIONS AND SOURCES OF DATA

Research Question 3: Distance Education as a Viable Option

Issue	Sources of Data	Categories
Why DE is viable	1. All questionnaires items 6 -8 2. Interview Schedule items 5 – 6 & 28c	1. Demand for education: increasing demand, current institutions and facilities inadequate, need for higher qualifications 2. Cost: DE cheaper, DE more cost effective, maximum utilisation of existing facilities 3. DE successful: has already been successfully used in Uganda and elsewhere, opportunity for immediate application of skills 4. DE caters for changing needs: lifelong learning, upgrading needs, refresher courses, changing character of university student 5. Flexibility of DE: work and study, study at own convenience, individual study 6. DE and access: DE has potential to reach more people, opens up access to the disadvantaged 7. Other reasons for potential
Reasons for not offering certain courses	1. All questionnaires item 8 2. Interview schedule item 7	1. Lack of equipment and other resources. This includes lack of facilities like labs, workshops, equipment, chemicals and kits and all other materials. 2. Need for close interaction and supervision. So the need for face-to-face sessions, on-the-spot supervision. 3. Need for instructional materials that may not be easily available. 4. Practical work and hands-on experience that may be difficult to provide for in a DE programme. 5. Cost of the programmes. Specialised equipment & materials may be too costly for DE students 6. Demand for a lot of concentration. Some of the courses a lot of concentration that may be difficult to achieve in a DE situation. 7. Lack of understanding of the concept of DE 8. Sensitivity of the subject like medicine requires a lot of care in preparation of professionals 9. Inadequacy of staff 10. Other reasons

Research Question 4: Practical Demands in Teacher Education

Issue	Sources of Data	Categories
Providing for practical work	1. Tutors, & managers' questionnaire item 16 2. Interview schedule item 16	1. Collaboration with other institutions 2. Use of face-to-face sessions 3. Involving other local experts 4. Use of kits for practical work 5. Integration of ICTs 6. Other strategies
Catering for Teaching practice	1. Tutors & managers' questionnaire item 17 2. Interview schedule item 17	1. Supervision 2. Collaboration with other institutions, departments and staff 3. Management of teaching practice 4. Posting of teachers 5. Structure and format of teaching practice 6. Other views

Research Question 5: Factors Impacting DE

Issue	Sources of Data	Categories
Issues that policy on ODL should highlight	1. Tutors & managers' questionnaire item 9 2. All other questionnaires item 9 & 10 3. Interview schedule item 8 & 9	1. Accreditation and recognition 2. Entry requirements and courses to be offered 3. Rules and regulations governing ODL. This should cover issues like minimum standards, study leave for trainees, training load of trainees, role of employers and private sector. 4. Funding and equipment for ODL programmes 5. Human resource needed to run the programmes 6. Student support systems in the programmes 7. Access and democratisation of education. Issues of numbers to be admitted, who should train and when. 8. Employment and remuneration of graduates of DE programmes 9. Institutions that can offer DE programmes and their administration and management 10. Policies related directly to Makerere University

Research Question 6: Strengths and Weaknesses of DE Teacher Education Programmes

Issue	Sources of Data	Categories
Strengths and weaknesses of DE teacher education programmes	1. Interview schedule and questionnaire for tutors & managers' item 13 & 14 2. All the other questionnaires item 14 & 15	1. Content of the programmes: Areas and skills covered, relevance of the content, variety of courses offered and quality of the programmes 2. Management and administration of the programmes: management structure and organisation, coordination, monitoring of activities, flexibility of programmes, student numbers, staffing, retention rates, costs and payment of staff. 3. Study materials development and provision: training of writers, quality of materials, speed of production, user friendliness, access, delivery and availability of materials. 4. Student support; face-to-face sessions, guidance and counselling, availability of tutors, student study group meetings, communication and information flow, library and book bank services 5. Assessment and examinations: assignment turn-around, feedback on assignments and exams, standards, equivalency/parity, failure rates, moderations and external examination, 6. Integration of ICTS Other strengths and weaknesses.
What can be done to improve management	1. Interview schedule and questionnaire for tutors & managers' item 15a 2. All the other questionnaires item 16a	1. Restructure and reorganise institutions and programmes 2. Ensure coordination of activities 3. Monitor and follow-up programme activities 4. Flexible programming 5. Revisit and manage student numbers 6. Recruit quality staff, train and retrain staff 7. Revisit fees and other costs of the programme 8. Improve payment for work done 9. Improve public relation 10. Better funding and resourcing of programmes 11. Improve communication and information flow 12. Other ways of improvement
What can be done to improve study materials development	1. Interview schedule and questionnaire for tutors & managers' item 15b 2. All the other questionnaires item 16b	1. Recruitment, training, and motivation of staff 2. Quality control of study materials production 3. Production and acquisition of study materials 4. Adequate funding 5. Ensure user friendliness of study materials 6. Delivery, availability and access to study materials 7. Integration of ICTS and variety of study materials 8. Other ways of improvement

What can be done to improve student support	1. Interview schedule and questionnaire for tutors & managers' item 15c 2. All the other questionnaires item 16c	1. Planning and management of face to face sessions 2. Provision of guidance and counselling 3. Tutors and other support staff 4. Planning and management of student study group meetings 5. Improve communication and information flow 6. Improve library and book bank services 7. Integration of ICTs and improve other facilities 8. Ensure access to services 9. Improve organisation and management of support services 10. Other ways of improvement
What can be done to improve assignment and examination system	1. Interview schedule and questionnaire for tutors & managers' item 15d 2. All the other questionnaires item 16d	1. Address assignment turn-around 2. Provide feedback on assignments and examinations 3. Ensure standards, work towards equivalence and parity in the programmes 4. Ensure moderation and external examination 5. Proper records management 6. Improve management of assignments and exams 7. Other ways of improvement
Quality assurance mechanisms	1. Interview schedule item 18 2. Tutors a& managers' questionnaire item 18	1. Monitoring and evaluation 2. Assessment and examinations 3. Institutional standards and procedure 4. Quality staff and staff development 5. Study materials development and provision 6. Student support services 7. Management systems 8. Entry requirements 9. Curricula 10. Funding and facilities 11.Integration of ICTs

Research Question 7a: Strengths and Weaknesses of Bachelor of Education (External)

Issue	Sources of Data	Categories
Strengths and weaknesses of Content of B.ED	1. Interview schedule item 22a & 23a 2. Tutors & managers' questionnaire item 23a & 24a **3.** Students' questionnaire item 21a & 22a **4.** Prospective students' questionnaire item 23	1. Areas and skills covered 2. Relevance of content 3. Variety of courses offered 4. Quality and standards of content 5. Delivery and methods of teaching 6. Structure of content 7. Other strengths and weaknesses
Strengths and weaknesses of practical work	1. Tutors & managers' questionnaire item 23b & 23b **2.** Students' questionnaire item 21b & 22b **3.** Prospective students' questionnaire item 23	1. Collaboration with other institutions 2. Face-to-face sessions 3. University expertise and other expertise 4. Facilities and kits for practical work 5. Integration of ICTs 6. Standards of practical work 7. Skills acquired 8. Other strengths and weaknesses
Strengths and weaknesses of management	1. Interview schedule item 22b & 23b 2. Tutors & managers' questionnaire item 23c & 24c **3.** Students' questionnaire item 21c & 22c **4.** Prospective students' questionnaire item 23	1. Structure and organisation 2. Coordination of activities 3. Monitoring and follow-up of programmes activities 4. Flexible programming 5. Numbers admitted to the programme 6. Recruitment of quality staff, training, and retraining of staff 7. Fees and cost of the programme 8. Payment and motivation of staff 9. Information dissemination and public relation 10. Funding of the programme 11. Other strengths and weaknesses
Strengths and weaknesses of study materials development and provision	1. Interview schedule item 22c & 23c 2. Tutors & managers' questionnaire item 23d & 24d **3.** Students' questionnaire item 21d & 22d **4.** Prospective students' questionnaire item 23	1. Recruitment, training and motivation of staff 2. Quality control of materials 3. Speed of production of study materials 4. Funding and cost of materials 5. User friendliness of study materials 6. Access, availability and delivery of study materials 7. Integration of ICTs and variety of study materials 8. Other strengths and weaknesses
Strengths and weaknesses of Student support	1. Interview schedule item 22d & 23d 2. Tutors & managers' questionnaire item 23e & 24e	1. Planning and management of face to face sessions 2. Provision of guidance and counselling 3. Tutors and other support staff 4. Planning and management of student study group meetings

	3. Students' questionnaire item 21e & 22e **4.** Prospective students' questionnaire item 23	5. Communication and information flow 6. Library and book bank services 7. Integration of ICTs and other facilities 8. Access to services 9. Organisation and management of support services 10. Other strengths and weaknesses
Strengths and weaknesses of Student assessment and examinations	1. Interview schedule item 22e & 23e 2. Tutors & managers' questionnaire item 23f & 23f **3.** Students' questionnaire item 21f & 22f **4.** Prospective students' questionnaire item 23	1. Assignment turn-around 2. Feedback on assignments and examinations 3. Standards, equivalence and parity in the programmes 4. Moderation and external examination 5. Records management 6. Management of assignments and exams 7. Other ways strengths and weaknesses

Research Question 7b: Bachelor of Education (External) and Competencies

Issue	**Sources of Data**	**Categories**
Important teacher competencies	Interview schedule and Prospective students' questionnaire item 20	
Why B.Ed does not help teachers acquire competencies	1. Interview schedule and Prospective students' questionnaire item 21b 2. Tutors & managers' questionnaire item 22 3. Students' questionnaire item 20	1. Theoretical courses 2. Inadequate support for students 3. Inadequate methods of teaching employed by the tutors 4. Inadequate study materials 5. Curriculum does not emphasize most of the competencies 6. Inadequate opportunities for practice 7. Inadequate and poor staffing 8. Student inadequacies 9. Inadequate facilities 10. Other reasons
How to cater for needs of teachers and pupils	Interview schedule and Tutors & managers' questionnaire item 19	1. Needs assessment and evaluation 2. Curricula 3. Staff and staff development 4. Scheduling and programming 5. Study materials provision 6. Student support provision 7. Other strategies

APPENDIX VIII: SAMPLE TIMETABLE FOR FACE TO FACE

BED I 2002/2003 SEMESTER I (FRESHERS) DRAFT TIME TABLE FOR ORIENTATION, FACE TO FACE AND REGISTRATION FROM 16TH TO 28TH SEPT.2002

TIME	MON 16TH	TUE 17TH	WED 18TH	THUR 19TH	FRI 20TH	SAT 21ST	SUN 22ND	MON 23RD	TUE 24TH	WED 25TH	THUR 26TH	FRI 27TH	SAT 28TH
7.30-8.30			MAED 111 2 MAEM 111 LT	MAED 111 2 MAEM 111 LT	MAED 113 2 ELS 111 LDH	MAED 113 2 ELS 111 LDH		MAED 112 2 ELS 111 LDH	MAED 112 2 ELS 111 LDH	MAED 111 2 MAEM 111 LT			
8.30-10.30	**REPORTING DAY**	MAED113 2 MAEM 111 LT BUS 111 CH F/ART- JM	MAEM 111 LT ECON 111 CH F/ART- IF LIT 112 LD	MAED 113 2 RS 111 (A) LDH RS 111 (B) ADH BUS 112 **(SA)** CH BUS 113 **(KV)** 127	ECON 112 CH LIT 112 LD BUS 112 **(TN)** LT BUS 113 **(KG)** 127 EC 111 LDH	ECON 111 CH MAEM 112 LT F/ART-TMK LIT 111 LD	KLS 111 126 LL 111 127 MAED 112 LT MAEM 111 CH	MAED 112 2 MAEM 111 LT BUS 112 **(SA)** CH BUS 113 **(KV)** 126 LIT 112 LD EC 111 LDH	SS 111 LDH LIT 111 LD ECON 112 CH F/ART-NK	RS 111 (A) LDH RS 111 (B) ADH MAED 113 2 F/ART- JM LIT 111 LD **REGISTRATION**	ELS 111 LDH BUS 112 SA CH **REGISATION** BUS 113 **(KV)** 127 F/ART-IF	MAEM 111 CH MAED 112 LT F/Art NK ELS 111 LDH **REGISTRATION**	**REGISTRATION** F/ART-TMK MAEM 112 CH MAED 111 LT ES 111 LDH
10.30-11.00	**B**	**R**	**E**	**A**	**K**		**B**	**R**	**E**	**A**	**K**		
11.00-1.00	**REPORTING DAY**	KIS 111 126 LL 111 127 MAEM 112 CH MAED 111 LT F/ART- JM	ELS 111 LDH MAED 112 LT BUS 113 **(KG)** 127 BUS 112 **(TN)**CH F/ART- IF	ADM MINOR (A)LDH COMP ED (B)ADH ECON OF EDUC (C) LV DH	PHIL OF EDUC (A) LDH SOC OF EDUC (B) ADH ADM MINOR (C) LV DH	LIT 112 LD BUS 113**(KG)** 127 BUS 112 **(TN)** CH MAEM 111 LT F/ART-TMK	SOC OF EDUC (A) LDH ADM MINOR (B) ADH COMP EDUC (C) LV DH	HIST OF EDUC (A) LDH PHI OF EDUC (B) ADH SOC OF EDUC (C) LV DH	MAEM 111 LT GG 111 LDH BUS 111 CH F/ART-NK EC 112 LDH	HIS 111 LDH MAED 111 LT BUS 112 **(SA)** CH BUS 113 **(KV)** 126 SS 111 ADH F/ART- JM **REGISTRATION**	BUS 112 TN CH BUS 113 **(KG)**127 MAED 111 LT F/Art IF **REGISTRATION**	MAEM 112 CH MAED 111 LT F/ART-NK EC 111 LDH **REGISTRATION**	F/ART-MK ES 112 LDH **REGISTRATION**
1.00-2.00	**L**	**U**	**N**	**C**	**H**		**L**	**U**	**N**	**C**	**H**		
2.00-4.00	**BRIEFING ST.AUGUSTIN**	HIS 111 LDH MAEM 112 CH MAED 113 LT F/ART-JM	LIT 111 LD ECON 112 LT SS 111**(DR)** LDH BUS 111 CH F/ART- IF	HIST OF EDUC (A) LDH PHIL OF EDUC (B) ADH SOC OF EDUC (C) LV DH	ECON OF EDUC (A) LDH HIST OF EDUC (B) ADH PHIL OF EDUC (C) LV DH	GG 111 ADH BUS 111 CH EC 112 LDH F/Art TMK	ECO OF EDUC (A) LDH HIST OF EDUC (B) ADH PHIL OF EDUC (C) LV DH	COMP EDUC (A) LDH ECON OF EDUC (B) ADH HIST OF EDUC (C) LV DH	ECON 111 CH RS 111 (A) LDH RS 111 (B) NK DH LIT 112 LT SS 111 **(DR)** ADH F/ART-NK	MAED 111 LT ELS 111 LDH F/ART-JM **REGISTRATION**	ELS 111 LDH BUS 111 CH F/ART- IF **REGISTRATION**	Briefing (Closing)	F/ART TMK EP 112 LDH
4.00-4.30	**B**	**R**	**E**	**A**	**K**		**B**	**R**	**E**	**A**	**K**		
4.30-6.30	**BRIEFING ST.AUGUSTINE**	SS 111 LDH LIT 111 CH GG 111 ADH	HIS 111 LDH MAEM 111 CH MAED 113 LT	COMP OF EDUC (A) LDH ECON OF EDUC (B) ADH HIST OF EDUC (C) LV DH	SOC OF EDUC (A) LDH ADM MINOR (B) ADH COMP EDUC (C) LV DH	MAED 112 2 BUS 112 **(SA)** CH MAEM 112 LT BUS 113 **(KV)** 126	PHIL OF EDUC (A) LDH SOC OF (B) ADH ADM MINOR (C) LV DH	ADM MINOR (A) LDH COMP EDUC (B) ADH ECON OF EDUC (C) LV DH	KIS 111 126 LL 111 127 MAEM 112 LT BUS 112 **(TN)** CH BUS 113 **(KG)** 4 MAED 112 2	MAED 112 LT SS 111 **(DR)** LDH **REGISTRATION**	MAEM 112 CH MAED 111 LT **REGISTRATION**	MAED 113 LT MAEM 112 CH **EC 112 LDH F/ART NK** **REGISTRATION**	
6.30-8.30					ES 111 LDH	ES 112 LDH	ES 111 LDH	EP 111 LDH	EP 112 LDH	EP 111 LDH	EP 112 LDH	EP 111 LDH	

KEY: LDH: Lumumba Dining Hall CH: Conference Hall Sch.of Educ. ADH: Africa Dining Hall LT: Lecture Theatre LVDH:Livingstone Dining Hall LD: Literature Deprt.(Facul.of Arts) RM: 2,4,: Lecture Rooms Sch. Of Educ 126,127: Lecture Rooms-Curriculum Block(Sch. Of Educ. NK DH: NKRUMAH DINNING HALL